EAST COVENTRY TOWNSHIP COMPREHENSIVE PLAN

2003

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CHAPTER 1 INTRODUCTION

This Comprehensive Plan for East Coventry Township is an update to the Township's Comprehensive Plan of 1995. It is intended to provide the Township the opportunity to reexamine the goals and objectives of the 1995 Plan. This reexamination has been accomplished in light of current and future growth and demographic trends, as well as contemporary planning concepts and growth management strategies. This Plan also addresses the planning goals, objectives and policies of both the 1996 Chester County Comprehensive Plan, "Landscapes", and "Managing Land Use in Northern Chester County" prepared by the Federation of Northern Chester County Communities, of which the Township is a member. The Township is also a member of the Pottstown Metropolitan Regional Planning Commission.

The purpose of the Comprehensive Plan is to establish a growth management strategy, consisting of a set of contemporary planning policies and implementation tools, with which to manage future growth and development in East Coventry Township. Furthermore, it is the intent of this update to establish the growth management strategy within the context of the planning requirements of the Pennsylvania Municipalities Planning Code¹, "Landscapes"², and the Chester County Comprehensive Plan.

Pennsylvania Municipalities Planning Code

The Pennsylvania Municipalities Planning Code (MPC) empowers municipalities in Pennsylvania to, individually or jointly, prepare plans for their future development and, by various legal and other measures, to implement those plans. Those municipalities choosing to plan for their future and take advantage of the benefits thereof, must meet the planning requirements of the MPC. Article III, Section 301 of the MPC requires that municipal comprehensive plans include the following basic elements:

- Community Development Objectives
- A Plan for Land Use
- · A Plan for Housing
- A Plan for Transportation
- A Plan for Community Facilities and Utilities
- Interrelationships of Plan Components

¹ Pennsylvania Municipalities Planning Code, Act of 1968, P.L. 805, Act 247, as reenacted and amended.

² Landscapes, Managing Change in Chester County, 1996-2020, Comprehensive Plan Policy Element, adopted July 12, 1996, by the Chester County Board of County Commissioners.

- Implementation Strategies
- Regional Plan and Development Relationships
- Water Supply Plan
- Natural and Historic Resources Plan

All municipal plans must be submitted for review and comment to the County in which the municipality is located, as well as to the surrounding municipalities and the local school district. The MPC requires that all counties within the Commonwealth prepare and adopt comprehensive plans and that the municipal plans be "generally consistent" therewith.

This Comprehensive Plan is in compliance with the above-stated requirements, as well as specific requirements found in Section 301(a)(6) of the MPC, where the standard is relevant to the Township. These specific requirements relate to various environmental standards that have been found to be significant to areas within Pennsylvania. In each case, the Township's Zoning Ordinance and Subdivision and Land Development Ordinance provide safeguards and procedures that will protect the Township from the negative effects associated with stream and riparian protection, mining reclamation and subsidence and agricultural nutrient management.

"Landscapes", The Chester County Comprehensive Plan

Recognizing that recent unprecedented growth and development in Chester County has created a sprawl pattern of development which, if left unchecked, would continue to degrade the quality of life of Chester County residents, the Chester County Board of Commissioners adopted, in July of 1996, a Comprehensive Plan for the County entitled "Landscapes, Managing Change in Chester County, 1996-2020, Comprehensive Plan Policy Element". The stated purpose of the Chester County Plan is to reverse the trend toward a continued pattern of sprawl development. This is to be accomplished by enlisting the cooperation of municipalities in working, in a coordinated fashion, toward a new way of managing growth and development that will preserve the unique character and quality of life in Chester County. "Landscapes" is intended to provide a County-wide vision of the future and, as an alternative to the current pattern of sprawl development, a growth management framework to help:

- Preserve the unique character of Chester County
- Preserve open space and farmland
- · Preserve historic resources
- Strengthen communities
- Reduce traffic congestion
- Control public costs

Maintain a competitive economy

This growth management framework establishes the concept of "Livable Landscapes" wherein four distinct landscape types within the County are identified; natural, rural, suburban, and urban, as well as villages and centers. Included are strategies for achieving the appropriate intensity and character of development within each of the landscapes. In order to protect and enhance the character of each of the landscape types, growth boundaries are delineated to define those areas in which growth and development should occur. The urban and suburban landscapes are designated to accommodate future growth insofar as they have traditionally been development centers and have infrastructure in place. The natural and rural landscapes are designated as protection areas, not suitable for development, because they serve as important sources of open space and contain environmental, scenic and agricultural resources.

Within the "Landscapes" document is a generalized mapping of the four landscape types. East Coventry Township has been designated as being made up of Suburban, Natural and Rural landscapes. The Suburban Landscape is located in the northern sector of the Township, and is generally centered on Route 724. This road connects to Route 100 in the adjacent North Coventry Township, just south of the Borough of Pottstown, providing easy access to its service and employment centers. The Natural Landscape is a narrow band oriented along the west to east flowing Pigeon Creek, a tributary of the Schuylkill River. The Rural Landscape occurs on approximately the southern half of the Township. This area has a lower density of development than found in the northern area.

In order to define and create the "Livable Landscapes", a number of guiding goals have been developed as a reflection of the desires of Chester County residents. The Comprehensive Plan advocates that all future planning decisions be made within the context of these goals if the County's Vision of the future is to be achieved. A summary of the guiding goals is as follows:

- Preserve and enhance the diversified mix of <u>Land Uses</u> through municipal cooperation and concentration of development.
- Sustain and enhance natural, scenic and historic <u>Resources</u> while accommodating planned growth.
- Achieve and maintain a healthy business climate to ensure <u>Economic</u> <u>Development</u> and growth and preserve the quality of life.
- Provide an intermodal <u>Transportation</u> system optimizing mobility, strengthening the economy, protecting the environment, and supporting the Vision.

- Provide <u>Community Facilities and Services</u> to meet residents' needs through cooperation of the public and private sectors.
- Provide <u>Utilities</u> to meet all needs while protecting the environment and public health and supporting development consistent with "Livable Landscapes".
- Provide diverse and affordable <u>Housing</u> to meet the need of all households.
- Provide for the <u>Human Services</u> needs of the County residents.
- Provide for the Public Health needs of County residents.
- Achieve a high level of intergovernmental and public-private <u>Planning</u> and Coordination.

The concept of "Livable Landscapes" provides the basic growth management framework within which planning decisions can be made. In addition to the establishment of growth boundaries, the concept also includes the identification of centers, villages and developed corridors, all of which, as patterns of development, have and will continue to add to the character of Chester County. Centers exist in the rural and suburban landscapes and serve as the focus of existing and future growth. Villages are important to the historical character of the County and will serve the local shopping community needs of rural residents. Developed corridors, on the other hand, are of more recent vintage and have been identified as areas that will require new development and land use controls in order to improve their appearance and their functional operation with respect to the transportation facilities that serve them.

Insofar as Chester County has no land use and development regulatory powers, in order to achieve the future Vision expressed in the County's Comprehensive Plan, a very close working relationship among and between the municipalities and Chester County is essential. To assist in accomplishing this level of coordination and cooperation, the County has established a Vision Partnership Program through which, in return for support of Chester County Comprehensive Plan initiatives, a municipality is eligible for technical and financial planning assistance. This assistance includes a review of local plans and ordinances to identify any changes necessary to implement the Vision, identification of growth boundaries, and funding for changes to the municipality's plans and ordinances.

The implications of the Chester County Comprehensive Plan initiatives for East Coventry Township and its planning and growth management program are significant and will provide direction to this Plan Update. They are summarized as follows:

- Critically analyze population and housing projections and determine the most appropriate location within the Township for accommodating additional growth and development.
- 2. Inventory natural, historic and agricultural resources and ensure protection through appropriate zoning and infrastructure planning.
- Identify areas within which higher intensity development can be accommodated. These should be areas, identified in the Federation of Northern Chester County Communities Regional Land Use Plan and the Pottstown Metropolitan Regional Planning Commission Land Use Plan, where infrastructure exists or can be most economically provided.
- Identify the potential for a multi-modal transportation system that creates or enhances the use of public transit and bicycle and pedestrian circulation in order to reduce the reliance on the automobile.
- Identify revisions to the Sewage Facility Plan for consistency with the Chester County Plan and the Township's growth management strategy.
- 6. Plan for a variety of housing types to meet the needs of all income levels.
- 7. Plan for the creation of neighborhood and/or community service centers.
- 8. Identify environmental, medical or social needs within the Township.
- Establish a strong intergovernmental planning coordinating mechanism as identified in the Federation of Northern Chester County Communities Regional Land Use Plan and the Pottstown Metropolitan Regional Planning Commission Land Use Plan.
- 10. Establish a growth management implementation strategy to guide and direct zoning and land development regulatory revisions in order to realize the Township's planning goals within the context of the Chester County Vision, the Federation of Northern Chester County Communities Regional Land Use Plan and the Pottstown Metropolitan Regional Planning Commission Land Use Plan goals.

The Federation of Northern Chester County Communities (FNCCC) Regional Land Use Plan

Since its inception in 1976, the FNCCC has been an organization of adjacent municipalities that has been able to address various issues that have impact beyond the local municipal boundaries. Members of the FNCCC are the Townships of East Coventry, East Nantmeal, East Pikeland, East Vincent, West Vincent, North Coventry, South Coventry, Warwick, and the Borough of Spring City. The first Regional Land Use Plan was adopted in 1980. The 1996 Plan was an acknowledgement that, in the interim, growth pressures had increased and development accelerated. Improved accessibility to the region and improvements in sewer and water systems have contributed to the growth trends that continue today.

The Regional Land Use Plan, adopted in 1996, is significant for addressing the land use concerns of the region and insuring that compatibility exists at the boundaries. Many services, such as transportation, schools, and utilities transcend municipal boundaries. The FNCCC provides a forum for the mutual consideration of issues, resulting in a coordinated approach to planning and the provision of services. The Regional Land Use Plan has several objectives.

- Provides a clear direction on land use policies
- Provides municipal and regional planning tools to guide growth
- Establishes a strategy for managing growth cooperatively

Members of the FNCCC, comprised of officials from the municipalities, meet regularly to consider matters of mutual interest and concern. The 1996 Plan is comparatively recent, but as time passes and development concerns continue, it will be necessary to update the Plan. It has been used in the preparation of this Comprehensive Plan for input on many of the mentioned planning issues that don't end at the Township's borders. The same holds true for the Pottstown Metropolitan Regional Planning Commission. Continued and consistent participation should be encouraged of all the member municipalities.

East Coventry Township Comprehensive Plan, 1995

The most recently adopted update to the Township's Comprehensive Plan is dated November, 1995, and was prepared by Motley Engineering Company, Inc. This document is a thorough analysis of the conditions present at that time and their implications for the Township's future growth. Included in the plan are inventories of natural features, demographic information at the mid-point between censuses, community facilities and transportation network, and plans for housing and future land use. The Existing Land Use Map portrays a pattern

of residential development uniformly located along the Township's roadways. Lots tend to be larger in the southern area resulting in a lower density residential pattern. A concentration of medium density residential development is found in the northern half. Areas of agricultural and open space uses are interspersed throughout the Township.

The Future Land Use Map projects a very generalized pattern of infill growth, primarily of the same pattern as that of the existing land use. Land use intensities range from commercial, industrial and medium density residential along Route 724 in the north, to rural and agricultural conservation in the south. A band of low density residential use provides the transition in the central area.

East Coventry Township Open Space, Recreation and Environmental Plan, 1992

An Open Space, Recreation and Environmental Resources Plan was prepared in 1992 by Rettew Associates, Inc. Such a plan is authorized by the Municipalities Planning Code, Act 247, and is encouraged as a tool to identify open space issues in a municipality and develop plans to act on those issues. The Open Space Plan not only provides an inventory and mapping of the Township's environmental resources, but also proposes preservation techniques. The Township was divided into 5 Recreation Planning Districts, each with specific goals. Standards for recreation facilities were discussed, both in terms of location and size. The relatively low population of the Township does not currently warrant additional acquisition of land for parkland, but the availability of such land needs to be anticipated for the future. Of primary concern is the ability of the Township to provide a central active recreational facility that will serve all of the residents. An additional concern is for passive recreation facilities such as trails for hiking and biking, and open space areas for wildlife habitat preservation.

The Township currently owns several properties, all but one of which are undeveloped. The Wade property off of Linfield Road was acquired in the 1970's and is (6) acres in size. In December of 2000, the Maack property was acquired and it is 59 acres. The 32 acre Heyser property was acquired in about 1990. The Faulk property, located between the Heyser and Towpath properties, was recently acquired, as well. Towpath Park is developed with passive recreation facilities. In addition, the Township also owns the acreage surrounding the Township building. See Chapter 4 for an expanded discussion of the Township's parkland.

The 1992 Open Space Plan has not been updated and it is recommended that it be revised following the adoption of this Comprehensive Plan Update. The

content of the 1992 Plan, or its successor, is of such a specific nature and more detailed than what is found in a Comprehensive Plan that it should be relied upon for matters concerning recreation and open space. Although an Open Space Plan is typically adopted as an independent document by the Board of Supervisors, it should be considered as an adjunct to the Comprehensive Plan.

Pottstown Metropolitan Regional Planning Commission

This regional organization is made up of municipalities from both Montgomery and Chester Counties. Currently, the Commission is in the early preparation stages of a Comprehensive Plan. As part of that preparation, a public opinion survey has been circulated among residents of the various municipalities, the results of which have recently been tabulated. Because of the timing of this survey coinciding with the finalization of this Comprehensive Plan for East Coventry Township, the Survey Results of East Coventry residents for the Regional Plan have been included in this Plan as an Appendix.

Although the reader may view all of the questions asked and the summarized results, it is of interest to note several features. East Coventry Township had the highest participation rate of the municipalities with a 32% response rate. The regional average response was 19%, with Pottstown having the lowest rate of response at 9%. The respondents were long time residents in general, averaging 26 years in the area and citing the Township's rural character as the reason chosen for remaining in the municipality. The survey posed fourteen questions, many of which involved multiple components, addressing topics ranging from highway and open space planning to satisfaction with local retail businesses and services.

Local Government Organization

East Coventry Township is a second class township under the State classification system and is governed by a three-member Board of Supervisors. Board members serve staggered six year elected terms. Responsibilities of the Board include all legislative functions, such as adoption and implementation of the Zoning Ordinance, the Subdivision and Land Development Ordinance and the Comprehensive Plan, including the rezoning of land and the approval of land development plans. For all of these functions the Board has the ability to consult its professionals. The ability to purchase and maintain public lands for the benefit of the residents also lies with the Board. The Board has the authority to assess taxes on the Township residents and is correspondingly obligated to fund services to the community. It also has the capacity to appoint committees and commissions.

The appointed Planning Commission is a five member body charged with the responsibility of reviewing all subdivision and land development applications and making recommendations to the Board of Supervisors. The Parks and Recreation Committee consists of seven appointed members, whose responsibilities include the monitoring of recreation needs of the Township and the utilization of publicly owned parkland. Development of programmed activities for the parks has been a concern for the Committee, including the organization of the annual Park Day held at Towpath Park. The three member Zoning Hearing Board is also appointed by the Board of Supervisors, however, rather than being advisory to the Board of Supervisors it has the quasi-judicial authority to hear appeals from individuals regarding provisions of the Zoning Ordinance. It can grant or deny relief from those provisions on the basis of local circumstances. It is assisted in its duties by the services of a Solicitor. The Historical Committee is comprised of members who have an active interest in the heritage of the Township and its historical artifacts. The documentation and preservation of the Township's abundance of historical buildings and other structures is of prime concern to this Committee. An additional board is the Board of Auditors, three members who oversee the financial records of the Township. There is also an elected position of Tax Collector who manages the collection of property taxes.

There are also staff employees of the Township who manage the ongoing business a municipality generates. East Coventry Township employees a Township Manager to direct the programs of the Township, provide administrative services to the Board of Supervisors and supervise a small office staff and road department employees. There is a Police Department which provides public safety services to residents, along with the State Police. The road department provides maintenance to municipality roads, as well as other maintenance responsibilities, such as parkland repair. The Township also has an elected Constable and an Emergency Management Director. Code enforcement and building inspection services are provided by the Township Engineer. Land use planning services are provided by the Township Planner, the author of this Comprehensive Plan. Both the Township Engineer and the Township Planner are consultants retained for professional services.

Public Participation

The preparation of this Comprehensive Plan was accomplished with the input of many people in East Coventry Township. Members of boards, commissions and committees provided information about community programs and resources. Residents of the Township were given opportunities to contribute to the input at advertised public meetings, as well as at the public hearing held prior to its adoption. Issues and concerns raised by the public focused on land

use and the ability of the Township to preserve the rural and natural characteristics still found in many areas of the Township. Results of the Pottstown Metropolitan Regional Planning Commission survey for its Comprehensive Plan have also been utilized in the preparation of this Plan. East Coventry Township, by virtue of being a member of two regional planning organizations, has the ability to benefit from each. This Plan addresses those issues found to be of importance to citizens and makes recommendations to accommodate future growth, while conserving agriculture and open space.

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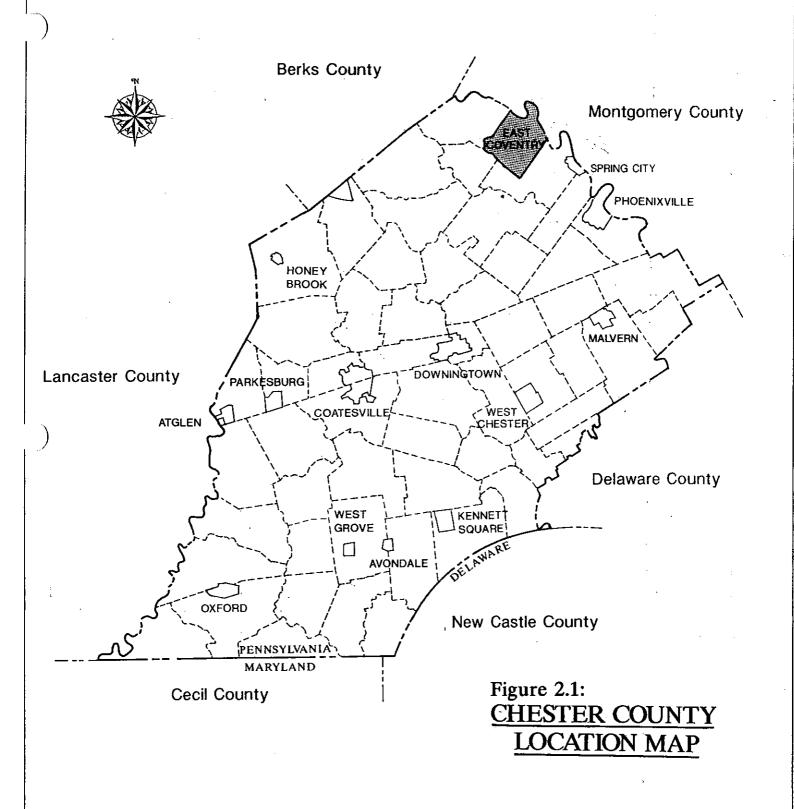
CHAPTER 2 REGIONAL SETTING AND HISTORIC PERSPECTIVE

An understanding of a community's regional setting is important to the comprehensive planning process because it identifies the external factors that influence the character and land use patterns of that community. Regional relationships include social and economic ties as well as the provision of municipal services such as schools, transportation, water and sewer service, police and fire protection and emergency medical services. The proximity of East Coventry Township to urban centers, major transportation corridors and public facilities and services influences, to a great degree, the nature and rate of growth and development that affect the Township. The purpose of this chapter is to identify the key regional relationships that influence East Coventry and to determine the implication of these relationships for the planning of the future of the Township.

Regional Setting

East Coventry Township is located in the northernmost sector of Chester County and is a member of the Federation of Northern Chester County Communities and the Pottstown Area Council of Governments. The land area of the Township is about 11 square miles or 7040 acres. It is bounded to the north by the Schuylkill River and Limerick and Lower Pottsgrove Townships in Montgomery County, to the east by East Vincent Township, to the south by East Vincent and South Coventry Townships, and to the west by North Coventry Township. See Figure 2.1. Although East Coventry is primarily rural in character, there are urban centers in the region surrounding it. The Borough of Pottstown is about one (1) mile to the north; the City of Reading is about (17) seventeen miles to the northwest; the City of Philadelphia is about (28) twentyeight miles to the southeast, the City of Allentown is about (28) twenty-eight miles to the northeast; and the City of Lancaster is (36) thirty-six miles to the southwest. Also nearby and to the east are Spring City, Royersford, and Phoenixville. Each of these townships, boroughs and cities is well within a distance from East Coventry Township to be able to play a role in providing commercial services, recreation, institutional facilities and employment.

The region in which East Coventry is located is served by a road network which is consistent with the rural development pattern of the area. Most of the roads within the Township are local or development roads. Only two major roads are found within the Township; Route 23 (Ridge Rd.) crosses northern Chester County and the southern area of the Township in an east-west direction, and Route 724 (Schuylkill Rd.) generally parallels the river across the northern sector of the Township. These two roads provide access to the region's major





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CHESTER COUNTY

PENNSYLVANIA

highway network, namely Route 100 to the west with access to the Pennsylvania Turnpike, Route 422 in Montgomery County, and Route 30 in central Chester County. See **Figure 2.2**.

Being that East Coventry Township is located along the Schuylkill River, the boundary between Chester and Montgomery Counties, planning concerns often relate to areas within both counties. For that reason, the Township finds it advantageous to participate in planning efforts in Chester County through the Federation of Northern Chester County Communities, and through the Pottstown Metropolitan Regional Planning Commission, which represents municipalities in both counties. The following is a membership list for each regional planning organization:

Federation of Northern Chester County Communities:

East Coventry Township
East Nantmeal Township
East Vincent Township
North Coventry Township
South Coventry Township
Spring City Borough
Warwick Township
West Vincent Township

Pottstown Metropolitan Regional Planning Commission

Douglass Township (Montgomery Co.)
East Coventry Township (Chester Co.)
Lower Pottsgrove Township (Montgomery Co.)
New Hanover Township (Montgomery Co.)
North Coventry Township (Chester Co.)
Pottstown Borough (Montgomery Co.)
Upper Pottsgrove Township (Montgomery Co.)
West Pottsgrove Township (Montgomery Co.)

From a connectivity point of view, there is one heavily traveled vehicular bridge crossing the Schuylkill River in East Coventry Township (Linfield-Trappe Road). However, there are five bridge crossings in nearby North Coventry Township, all in the immediate vicinity of Pottstown. Regional influences surrounding Pottstown cannot be overlooked, with the relatively accessible connections available across the Schuylkill River. Many issues transcend the boundaries, including environmental, employment, recreation and economic. Participation in both of the regional planning organizations should be beneficial to the

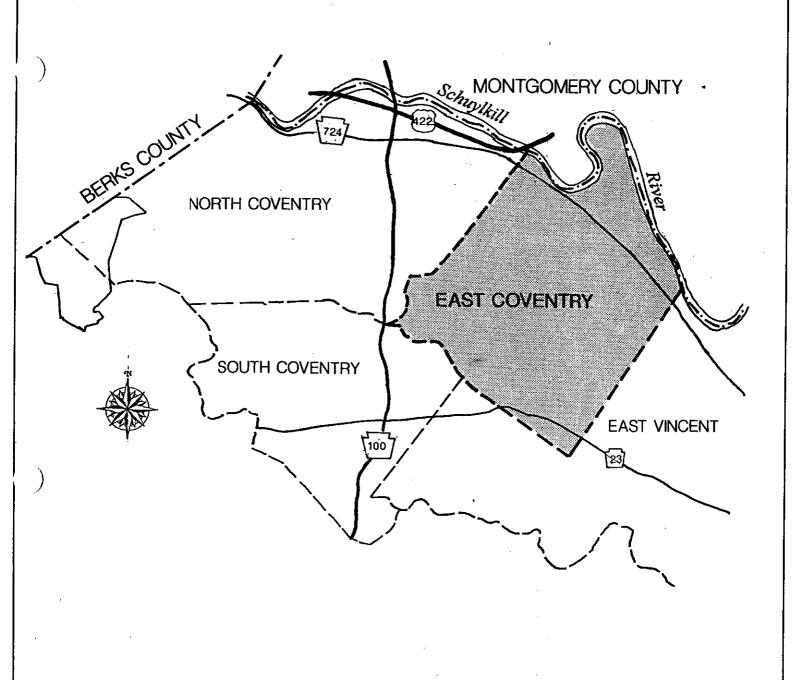


Figure 2.2: LOCAL REGION



TOWNSHIP OF

EAST COVENTRY

CHESTER COUNTY PENNSYLVANIA

Township and continued involvement is encouraged by this Comprehensive Plan.

Historical Perspective

At the beginning of the 18th century the region was vaguely described in old records as "the Highest District from Skoolkill to Brandiwine" and was known as the "Skoolkill District". The name Coventry was given to it by Samuel Nutt, an early settler, whose forebears were from the English town of the same name. It was first settled in 1718 by twenty-eight families and there were four non-resident land owners. One of these landowners was Owen Roberts. By 1774 the population had almost tripled. That same year Coventry had 78 landowners, among whom were some whose names still exist on Township roads. Farming was then the chief pursuit, although several grist mills were located along Pigeon Creek.

Coventry Township was instrumental during the Revolutionary War. An 1879 newspaper clipping relates that "...on Herman Prizer's farm on Ellis Woods Road stood a barn used as a hospital for American forces in the Revolutionary War ... About 150 yards northwest of the barn, in a small copse of woods belonging to John Ellis are the graves of 16 American soldiers. The mounds over the graves are still visible, being side by side, in a straight line, and about four feet apart. There are no head or foot stones...". Following the Revolutionary War, there was a steady increase in population and by 1840, the year before the Township was split in half to form North and South Coventry, the number of residents had climbed to 2620. In 1844 there was a further division, with East Coventry being carved out of North Coventry. The population in East Coventry Township in 1850 was recorded as 1228.

The water power of the Township provided industrial opportunities for early settlers. There were several mills in operation in the early to mid 1800's. In addition, the early settlers found opportunities in agriculture. The land area adjacent to the Schuylkill River and Pigeon Creek provided exceptionally productive land for farming. It should be noted that a vast portion of these areas of the Township are still utilized for agricultural uses.

The Schuylkill Canal Navigation System, located along or adjacent to the Schuylkill River in the northern portion of East Coventry Township, was incorporated in 1815 and completed in 1824. The purpose of the Schuylkill Canal was to provide a system for transporting coal, iron, lumber, merchandise and produce between Mt. Carbon/Mill Creek (Schuylkill County) and the City of Philadelphia. The total length of the system was 108 miles. Since the Township was located along this particular canal system, it provided several

opportunities to the residents of the Township during this time. The system also played an important role in the growth and development of East Coventry Township.

By 1870 the Schuylkill Canal became obsolete and eventually was abandoned in favor of other improved transportation systems. Between 1850 and 1950 there was little change or growth within the Township. In appearance it was still a rural community with agriculture as the dominant land use. During the 100 year time period, the population of East Coventry increased by only 271 residents. The population of the Township in 1950 was recorded as 1499. Between 1950 and 1960 the population increased to 2183 residents. This growth rate (45.5 percent) is mostly attributed to the availability of reasonably priced land, regional locality, a growing economy, and the improvements to the regional transportation network. As of the 2000 Census, the Township population was 4566, representing slightly more than a doubling over the most recent 40 years. Much of the recent growth has occurred in the northern areas of the Township, in the form of residential housing built on productive farmland.

Summary

East Coventry Township has maintained a great deal of its historical character over the time of its existence. That character has been primarily agricultural. However, like most areas in the region, low density residential development is occurring as families find the area a pleasant place to live and access to employment centers improves. The region offers numerous opportunities for its residents, including good schools, recreational lands, local services and regional retail centers. Within this network of facilities and services, the setting of the Township remains one of low density development with a high degree of open space.

CHAPTER 3 EXISTING CONDITIONS

This chapter of the Comprehensive Plan analyzes the natural features of the Township, as well as the scenic, historic and archaeological resources. It describes the geological, ground water, soils, topographical, hydrogeological, floodplain, wetland, and biotic resources, and illustrates the relationships between these fundamental natural characteristics. One of the purposes of this chapter is to portray the value of these characteristics as a means to establishing areas that should not be subject to disturbance. Much of the material found in this chapter appeared in the 1995 Comprehensive Plan, prepared by Motley Engineering Company, Incorporated. As an inventory of primarily natural features, the information remains valid.

More recently, there has been a focus of attention on the relationship between sustainable watershed management and land use planning. This effort has been led by the Green Valleys Association, a watershed management organization founded in 1964 and headquartered in East Nantmeal Township. Its purpose is to promote sound land use planning through regulatory controls and education. The geographic area of concern includes East Coventry Township and other surrounding municipalities, encompassing 150 square miles. The organization's Sustainable Watershed Management Program is an initiative which strives to have participating municipalities adopt recommended controls within Zoning Ordinances and Subdivision and Land Development Ordinances. Recommendations include protective measures affecting many of the natural features in this chapter. The Natural Features Plan found in Chapter 9 addresses these same concerns with a discussion of the relevancy of each and recommendations to implement the program. This Comprehensive Plan strongly endorses the Sustainable Watershed Management Program and suggests that the Township formally embrace the concepts by considering Code amendments targeting the referenced natural features.

The comprehensive inventory of these features follows, with an evaluation of the relative effects that potential development could have on each. The order in which the elements appear is generally based upon the stability and remoteness of the element, progressing from geology to biotic resources. This analysis is the basis for resource protection policies that will preserve the integrity of the natural features of East Coventry Township into the future.

<u>Geology</u>

The Commonwealth of Pennsylvania is divided into four (4) major physiographic provinces. These provinces include the Coastal Plain Province, the Piedmont

Province, the Valley and Ridge Province and the Appalachian Plateau Province. There are also two (2) minor provinces known as the Blue Ridge Province and the New England Province. East Coventry Township is located in the Triassic Lowland Region of the Piedmont Province, and is made up primarily of sandstone, red shale interbeds and conglomerates.

The geological formations which underlie East Coventry Township have important implications relating to water supply, foundation stability and excavation. Since an adequate supply of potable water is necessary for expansion and growth, it is essential that proper planning be coordinated to conserve and protect the groundwater resources for the future.

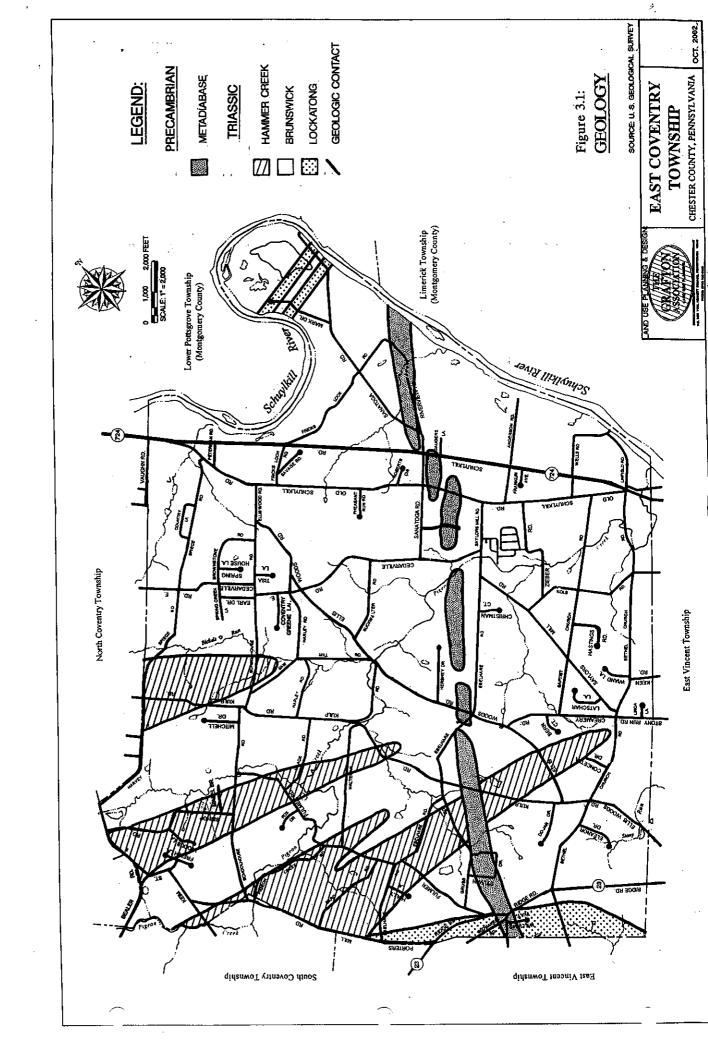
The Township consists of four (4) geologic formations. These formations have been depicted in **Figure 3.1**. A description of these formations is provided in the following text:

Triassic Diabase Formation

The Triassic Diabase Formation is from the late Triassic Period (190-200 million years) of the Mesozoic Era. This particular formation is located in a narrow strip which traverses the center of the Township in a north-south direction. Figure 3.1 depicts the geological features of East Coventry Township and where this Diabase has intruded other formations.

The Diabase in the larger intrusives, except in the chilled border zone, is medium to course grained, greenish gray, and also consists of 90 to 95 percent labradorite and augite. Near the Diabase intrusives, the shales of the Brunswick are altered to dark, tough hornfels. These hornfels closely resemble the Lockatong Formation because of the change of color caused by the reduction of ferric to ferrous oxide. The effect of the metamorphism on the color of the sediments is gradational, the first effect being the change from red to purplish red. With increased baking, the beds change from purple to dark gray or blue black. This complies with the soils of the Brecknock series that have formed from the weathered shale.

Diabase is typically known for its poor water bearing capabilities. The groundwater yields are barely enough for residential use. Well yields from Diabase range from 0.1 to 25 gallons per minute with the median being 5 gallons per minute, Approximately 140 wells would need to be drilled in order to produce 1,000,000 gallons of water per day in the Triassic Diabase Formation. The water quality is typically alkaline, hard to very hard, with moderate amounts of dissolved solids.



Brunswick Formation

The Brunswick Formation is from the middle Triassic Period (200-215 million years) of the Mesozoic Era. Most of East Coventry Township is encompassed by the Brunswick Formation with higher concentrations in the northern and central portions of the Township.

The Brunswick Formation consists of reddish-brown shale, mudstone and siltstone. A few very thin beds of green shale and brown shale are present in the Brunswick Formation, and in some places they can be used as marker beds for distances up to one (1) mile.

The Brunswick Formation has been found to consist chiefly of feldspar, illite, chlorite, quartz, and calcite. Some beds are finely micaceous. Joints in the formation commonly are partly filled with calcite and quartz. Occasionally barite and pyrite are present as joint filling, and very small crystals or pyrite may be disseminated throughout the rock. Near the base of the Brunswick Formation much of the rock is tough, thick-bedded red argillite and is interbedded with dark-gray argillite of the Lockatong Formation. This red argillite grades upward and also along strike into red shale, mudstones and siltstone. These are typically interbedded with and grade laterally into sandstone and fanglomerate. Exposures of the Brunswick Formation can be found along streams and railroad cuts.

The Brunswick Formation is typically known for its good water bearing capabilities. This Formation is highly permeable due to high concentration of horizontal and vertical planes oriented at intersecting angles, providing channels through which groundwater can flow. The groundwater yields are high and are sufficient to support low to medium density residential, commercial and industrial land uses. Depending on the depth, the well yields from the Brunswick Formation range from 50 to 300 gallons per minute with the median being 100 gallons per minute. Approximately 7 wells would need to be drilled in order to produce 1,000,000 gallons of water per day in the Brunswick Formation. The water quality is generally acidic, hard, with moderate amounts of dissolved solids.

Hammer Creek Formation

The Hammer Creek Formation is from the middle Triassic Period (200-215 million years) of the Mesozoic Era. This particular formation is primarily located in the southern and western portions of East Coventry Township.

1. N. W. 182

The Hammer Creek Formation consists of cobble and pebble quartz conglomerate interbedded with reddish-brown quartzose sandstone and shale. Joints in the formation commonly are partly filled with calcite and quartz. Occasionally barite and pyrite are present as joint filling, and very small crystals of pyrite may be disseminated throughout the rock. Near the base of the Hammer Creek Formation much of the rock in tough, thick-bedded red argillite and is interbedded with dark-gray argillite of the Lockatong Formation. Exposures of the Hammer Creek Formation can be found along stream cuts.

The Hammer Creek Formation is also known for its good water bearing capabilities. The permeable rates are considered moderate. The groundwater yields are sufficient to support low density residential land uses. Depending on the depth, the well yields from the Hammer Creek Formation range from 20 to 100 gallons per minute with the median being 35 gallons per minute. Approximately 20 wells would need to be drilled in order to produce 1,000,000 gallons of water per day in the Hammer Creek Formation. The water quality is generally acidic, soft, with low amounts of dissolved solids.

Lackatong Formation

The Lackatong Formation from the early Triassic Period (215-225 million years) of the Mesozoic Era. This formation is primarily located in the southeastern portion of East Coventry Township. However, a small strip is present in the northeastern portion.

The Lackatong Formation consists of dark gray to black argillite with occasional zones of impure limestone. The joints have a blocky pattern which are moderately developed and closely spaced. The joint openings provide secondary porosity. The formation is moderately weathered to shallow depth; however, the overlying mantle is thick. The Lackatong Formation resembles the appearance and characteristics of the Triassic Diabase Formation.

The Lackatong Formation is typically known for its poor water bearing capabilities. The groundwater yields are barely enough for residential use. Well yields from the Lackatong Formation range from 1 to 25 gallons per minute with the median being 12 gallons per minute. Approximately 58 wells would need to be drilled in order to produce 1,000,000 gallons of water per day in the Lackatong Formation. The water quality is slightly alkaline, hard, with moderate amounts of dissolved solids.

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Groundwater

In 1994, the Township had a hydrogeological analysis performed on its groundwater. The preliminary analysis included the sampling of domestic drinking water wells (properly constructed) and a laboratory analysis to determine the following:

- Nitrate levels
- Total Coliform
- Fecal Coliform
- Fecal Streptococcus

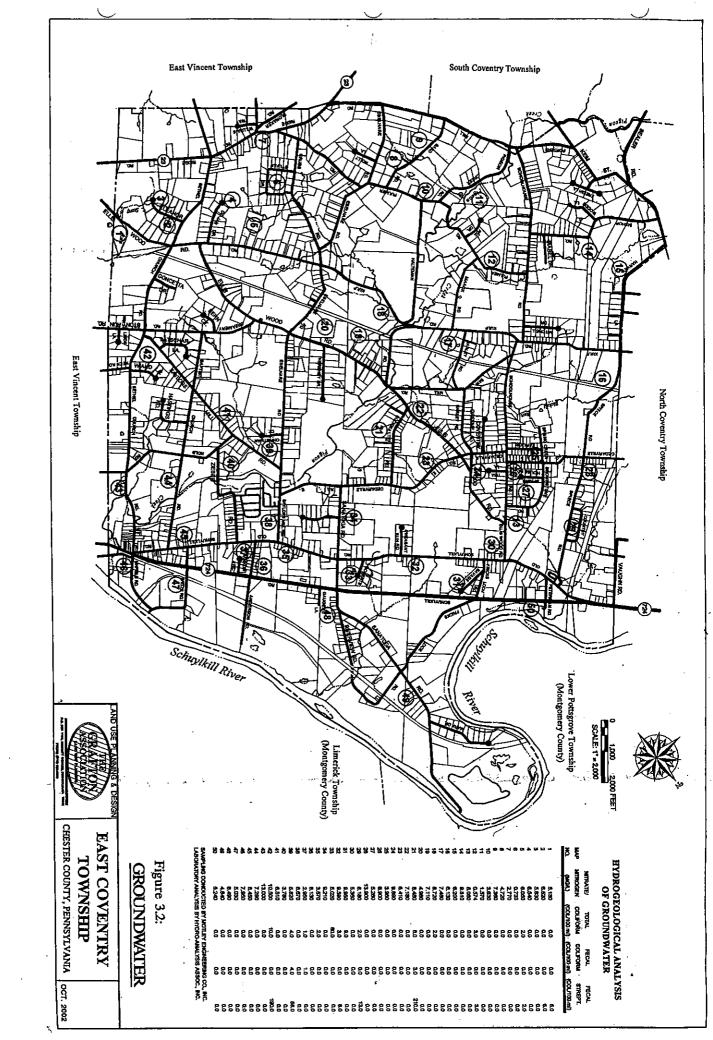
The results of this analysis have enabled the Township to determine and locate patterns of groundwater contamination. This information can subsequently be utilized to resolve certain wastewater treatment needs and problems.

The analysis procedure included the Township determining that an analysis of 50 groundwater samples, geographically spaced, would constitute an adequate sampling aggregate for East Coventry Township. The samples were obtained from untreated domestic wells throughout the Township. **Figure 3.2** depicts the locations of the samples which were obtained for the hydrogeological analysis.

The United States Environmental Protection Agency (EPA) has established limits for drinking water standards. The EPA has recommended the following limits for the parameters which were tested for this hydrogeological analysis:

Parameter	EPA Limit	Optimal Levels
Nitrates	10.0 mg/l	0.0 mg/l
Total Coliform	1.0 MPN/100 ml.	0.0 MPN/100 ml
Fecal Coliform	None	0.0 MPN/100 ml
Fecal Streptococcus	None	0.0 MPN/100 ml

Nitrate concentration is a measure of the chemical pollution present in a water sample. Principle sources of nitrates are fertilizers, barnyard wastes, decaying organic matter and wastewater from on-site sewage disposal systems. Nitrate levels with concentrations exceeding 10 mg/l in drinking water may be hazardous to children under 2 years of age and pregnant women. Six (6%) percent of the samples exceeded the EPA recommended limits. The treatment methods and/or options for reducing nitrate levels include a reverse-osmosis system, an ion-exchange system or purchasing bottled water for human consumption.



Total coliform, fecal coliform and fecal streptococcus concentrations are a measure of the bacteriological contamination in a water supply. Most bacteria in water are derived from contact with air, soil, living or decaying plants or animals and fecal excrement. Many diseases such as typhoid fever, dysentery and diarrhea are associated with bacteriological contamination. Eleven (11) samples, or twenty-two (22%) percent, exceeded the EPA recommended limit for total coliform. Three (3) samples, or six (6%) percent, exceeded the limits for fecal coliform. Nine (9) samples, or eighteen (18%) percent, exceeded the EPA recommended limits for fecal streptococcus. The treatment methods and/or options for reducing bacteriological contamination of groundwater include chemical treatment (chlorine, iodine, potassium permanganate), a quartz-mercury vapor lamp (ultraviolet light), boiling water or purchasing bottled water for human consumption.

Based on a review of the results of the hydrogeological analysis, it can be concluded that the overall groundwater quality with East Coventry Township was considered safe for human consumption following the time of the study, which was approximately 8 years before this writing.

Water Supply

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As noted above, the Township is dependent primarily on groundwater wells for its domestic water supply. Exceptions exist, however, in the form of two public water suppliers located outside the Township but which supply small areas within East Coventry Township. Pennsylvania American Water Company serves areas to the east of the Township, such as East Pikeland Township and portions of East Vincent Township, and also an adjacent portion of East Coventry Township (the Parker Ford area) located near its eastern border. A similar relationship exists with the Pottstown Borough Authority, which serves the northern portion of North Coventry Township and a small area of northern East Coventry Township. While not currently providing service to all of the northern sector of the Township, the current pattern serves the northern and eastern extremes of the part of the Township that has potential for future growth. That area is generally north of Pigeon Creek and Bickels Run and is elaborated upon more fully in the Land Use Plan, Chapter 7.

In the immediate and foreseeable future, though, the entire Township, and the northern sector in particular, will be primarily dependent upon well water from the aquifer system to provide much of the water for domestic residential needs, as well as those for other land uses such as agriculture, commercial and institutional. There is a need to protect both the quantity and quality of the groundwater resources available. Contamination of such sources can occur in many ways, most of which involve land use activities on the surface which

introduce substances into the soils which leach into the groundwater over time and may concentrate there. While there is some knowledge of the geologic structure that forms pockets of water, the interconnectivity of those pockets is difficult to map. Therefore, what goes into the ground in one place may show up in the well water of another, not necessarily nearby. The following are steps that can be taken to limit the introduction of chemicals into the groundwater:

- Encourage agricultural practices that limit or avoid fertilizers and pest control chemicals.
- Educate residents about the effects of lawn care chemical use.
- Require site development that manages runoff.
- Monitor tank storage of chemical and petroleum products.
- Continue to test aquifers on a periodic basis.

The quantity issue regarding water supplies may be more difficult to address through land use practices than quality issues. Aquifers are fed from rain water falling on the surface and percolating through the soil strata to pockets of sands and gravel where water is stored. The control of runoff and provision of conditions suitable for water to enter the soil are means to ensure the maximum amount enters local aquifers. Rainfall rates vary from year to year and can affect the water levels of aquifers. Another groundwater source is the movement of water from one area to another within the geologic strata. This occurs naturally, but is also affected by the removal of water by pumping that may draw down one aquifer which affects a nearby well. Although it is difficult to control water levels in aquifers, monitoring of levels on a regional basis should provide trends. Federal and State agencies typically do this, but the Township should participate by encouraging land owners with wells to make usage records available.

Soils

A soils analysis is of prime importance in the preparation of a Comprehensive Plan. Many aspects of land use planning are influenced by soil conditions. Through the use of the Chester County Soil Survey, many pertinent facts related to land use planning are discovered. The Soil Survey, issued in May of 1963, was prepared by the United States Department of Agriculture in cooperation with the Pennsylvania State University and the Pennsylvania Department of Agriculture. This section provides information dealing with natural productivity and land development.

Soils form primarily from weathered bedrock and because of this have characteristics similar to those of the underlying rock formations. The Township is basically covered with shallow to deep, well drained, rolling soils weathered

from shale and siltstone. In order to completely analyze the soils of East Coventry Township, the following detailed soil descriptions have been included within this Plan. These descriptions have been excerpted from the Chester County Soil Survey, prepared by the U. S. Department of Agriculture.

Bowmansville Series

The Bowmansville series consists of deep, poorly drained soils on flood plains. The soils formed in deposits of sand, silt, and clay washed from Triassic sandstone and shale. Their surface layer is mottled reddish brown and grayish brown, and their subsoil is mottled brownish yellow and brownish gray. In some places there are stratified layers of sand and silt in the lower part of the B horizon. The Bowmansville soils occur only in the northern part of Chester County. The native vegetation was a forest made up mainly of maple, cottonwood, hickory, red oak, and ash.

The parent material from which the Bowmansville soils formed is similar to that of the Rowland, Penn, Bucks and Readington soils. The Bowmansville soils, however, have poorer drainage than the Rowland soils, which are also on floodplains. They are in lower positions than the Penn, Bucks, and Readington soils, which occupy areas above the floodplain. The Penn and Bucks soils are well drained, and the Readington soils are moderately well drained. The substratum of these soils varies considerably in texture and in the amount of mottling. The texture of the substratum ranges from loam to silty clay loam, and in some places the substratum contains layers of silt and sand. The intensity of mottling in the surface layer and the range in color vary. Depth to the water table ranges from 20 to 36 inches.

Areas of these soils are flooded very frequently, and the water table is near the surface for long periods. In dry seasons, however, the water table may drop to a depth of 3 to 4 feet. Because excess water stands on the soils most of the time, aeration is poor and productivity is medium to low.

Bucks Series

The Bucks series consists of deep, well drained soils. The soils are underlain by Triassic red shale and sandstone. The surface layer is dark reddish-brown silt loam. The subsoil is a reddish-brown silty clay loam that in some places has a purplish cast. Beneath the subsoil is a layer of dark red, partially weathered fragments of shale. Depth to bedrock ranges from 3 to 5 feet.

These soils are on broad, gently sloping uplands that adjoin steeper areas of Penn soils. They are in the northern part of Chester County and border the

Schuylkill River. The soils occupy an area of 3 to 5 miles wide. They are east of Phoenixville and extend westward to the Berks County line. The native vegetation was mostly red oak, white oak, black oak, hickory, tulip poplar, and black walnut.

The Bucks soils are near the Penn, Readington and Croton soils. They are deeper and their subsoil is better developed than that of the moderately deep Penn soils; they are better drained than the Readington soils, which are moderately well drained, and the Croton soils, which are poorly drained. The Bucks soils , unlike the Readington and Croton soils, are free of mottling. The Readinton soils have mottling in the lower part of the subsoil, and the Croton soils have mottling at or near the surface.

Depth to bedrock ranges from 34 to 60 inches. The color of the surface layer ranges from light brown to red or dark red; the more reddish areas are more eroded. The texture of the subsoil ranges from silty clay loam to silty clay. The permeability and the available moisture capacity of the Bucks soils are moderate. The soils are moderate in fertility, and they are acid throughout the profile in areas that have not been limed. These soils are free of stones, and they are easy to till. They are used mostly for cultivated crops.

Croton Series

The Croton series consists of poorly drained soils on uplands. The soils are underlain by Triassic red and gray shale and sandstone. They occur only in the northern part of Chester County. The native vegetation was a hardwood forest made up of white oak, red oak, black oak, beech, maple and hickory.

These soils have a surface layer of dark brown silt loam that is mottled with gray. The subsoil is a mottled yellowish brown and reddish brown silty clay loam. A claypan that in most places occurs at a depth between 15 and 22 inches keeps the subsoil waterlogged much of the time.

The Croton soils are near the Readington, Penn, and Bucks soils, all of which formed from similar parent material. They have a darker surface layer than the Readington soils and are not so well drained. Unlike the Penn and Bucks soils, which are well drained and free of mottling in the substratum, the Croton soils have mottling near the surface. In places where the soil is shallower than normal, the subsoil has a pinkish cast. In a few low-lying areas, the profile is deeper than the profile described as typical because deposits have washed in from higher areas. These soils are predominantly gray or dark gray in areas that are near the Brecknock soils. The thickness of the claypan ranges from 12 to 24 inches.

The Croton soils are moderately low in productivity. Permeability is slow and aeration is poor. In most places excess water stands on the surface or the water table is high most of the time. In periods of dry weather, the available moisture capacity is low.

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Penn Series

The Penn series is made of shallow to moderately deep, well drained soils of uplands. The soils have a surface layer of dark red or reddish brown, friable silt loam. The subsoil is about the same color as the surface layer, but it contains more clay. It is underlain by reddish brown, partially weathered material and red and gray shale and arkosic sandstone. The native vegetation was a forest made up of various kinds of hardwoods, chiefly red oak and black oak, but it included some white oak and beech. These soils are nearly level to steep, but most areas are gently sloping. The areas are scattered throughout the northeastern part of Chester County.

The Penn soils are near the Bucks, Readington and Croton soils, all of which formed from similar parent material. They are shallower than the Bucks soils, but the color of the surface layer and subsoil is similar. The Penn soils lack the mottling in the deeper part of the subsoil that is typical of the moderately well drained Readington soils. Their surface layer is not so dark colored as that of the Croton soils, and their subsoil is free of the gray color that is typical of the subsoil in the Croton soils. The depth to parent material and the texture of the profile vary within short distances because of stratification of the parent material. Depth to unweathered shale or sandstone ranges from 18 to 34 inches. The B horizon ranges from a few inches to as much as 15 inches in thickness.

In most places the surface layer is reddish-brown silt loam, but in a few places it is dark reddish-brown or brown loam. In some places erosion has removed most of the original surface layer and numerous fragments of shale have been brought to the surface by tillage. In these areas the soil is fairly shallow and depth to the parent material ranges from 8 to 14 inches.

Permeability to water, air and roots is moderate to rapid, but the available moisture capacity is medium to low. In the severely eroded areas, these soils are droughty. The Penn soils are easy to work, but they are not naturally fertile. Crops on these soils respond well if lime and fertilizer are applied, but the soils have only moderate to poor capacity to retain plant nutrients. In places, runoff is fairly rapid and shallow gullies have formed.

Readington Series

The Readington series consists of moderately deep to deep, moderately well drained soils of uplands. The soils formed from Triassic red shale, sandstone and conglomerate. Their surface layer is dark grayish-brown silt loam. The subsoil is reddish-brown silty clay loam and is mottled at a depth between 24 and 32 inches. The substratum consists of red shale and sandstone. The native vegetation was mostly hardwoods, white oak, red oak, tulip poplar, ash, hickory and walnut.

These soils are in the northern part of Chester County. They are around the heads of streams, in depressions and at the foot of slopes. The soils are mostly north of an area that runs from Warwick through Bucktown, Wilsons Corner, Kimberton, and Williams Corner to the Schuylkill River.

The Readington soils are near the Penn, Bucks, and Croton soils, which have formed on similar parent material. They are not so well drained as the moderately deep Penn or the deep Bucks soils, but they are better drained than the Croton soils. The subsoil ranges from silty clay loam to clay loam in texture and from strong brown to reddish brown in color. Depth to mottling ranges from 15 to 32 inches, but mottling is generally at a depth between 24 to 30 inches. In most places bedrock is at a depth below 30 inches, but in a few places, it is at a depth of about 30 inches. The sandstone in the parent material ranges from light gray to reddish in color, but most of the shale is red. The permeability of these soils is moderately slow. The available moisture capacity is moderate to moderately high. Natural fertility is low. The water table is high for prolonged periods.

Rowland Series

The Rowland series consists of moderately deep to deep, moderately well drained soils on flood plains. The soils are underlain by Triassic red shale and sandstone. They have a surface layer of reddish-brown or dark reddish-brown silt loam. Their subsoil is dark reddish-brown sandy clay loam that is mottled with gray at a depth below 20 inches. The substratum consists of gray arkose sandstone and red shale. In a few places the stratified layers of sand and silt extend to a depth of between 3 to 4 feet.

These soils are in the northern part of Chester County. The native vegetation consisted chiefly of red oak, white oak, ash, tulip poplar, hickory, elm, walnut and sycamore. The Rowland soils are near the Bowmansville soil, which is also on flood plains. They are better drained than the poorly drained Bowmansville soils.

The texture of the underlying material ranges from sandy clay to coarse sand. In some places the soil consists of stratified silt and sand. Depth to mottling ranges from 12 to 25 inches. The depth to the water table varies with the season, but the water table is generally at a depth of about 30 inches. The permeability of these soils is moderately high, but the available moisture capacity is high. The soils have moderate to low natural fertility. Leaching has been fairly extensive and the profile is medium acid to strongly acid.

Wehadkee Series

The Wehadkee series consists of deep, poorly drained soils on floodplains. The soils formed in general alluvium washed by streams from upland soils underlain by schist, gneiss, quartzite, anorthosite, quartz, monzonite, and granite. The surface layer is dark grayish-brown silt loam. The subsoil is yellowish-brown silty clay loam that is mottled with various shades of gray. In most places stratified layers of sand and silt occur in these soils. The soils are mostly along Brandywine Creek and its tributaries. The native vegetation consisted of various kinds of hardwoods, chiefly red maple, alder, ash, elm and sycamore, but it included some white oak and red oak.

The Wehadkee soils are near the Congaree and Chewacla soils. In contrast to the Congaree sloils, which are also deep but are well drained and free of mottling, the Wehadkee soils have mottling throughout the profile. The Chewacla soils, on the other hand, are moderately well drained and have mottling only in the subsoil.

The texture of the different horizons ranges from sandy loam to silty clay loam. The thickness and arrangement of the layers vary with the frequency of overflow from the streams and the kind of sediments deposited. Mottling is at or near the surface. The Wehadkee soils are permeable to water, and they have a high water table during most of the year. Consequently, development of plant roots is restricted. The high water table also prevents the movement of air through the soil and restricts the availability of plant nutrients.

Soil Suitability for On-Lot Sewage Disposal

Soil features that are related to land use activity and community development include depth to bedrock, degree of slope, permeability, incidence of flooding, depth to seasonal high water table, texture of the soils and stoniness. The soil features of a site generally dictate the site's suitability and capacity for on-lot sewage disposal.

In Figure 3.3, ratings of slight, moderate and severe have been used to describe the degree of limitation for on-lot sewage development within the Township. A rating of moderate indicates soil limitations that may require special practices to overcome conditions, such as elevated sand mounds, experimental systems, or other alternate systems. A rating of severe indicates soil limitations that generally are difficult to overcome. A vast portion of the Township is rated severe, due to slope, high water table, or slow permeability.

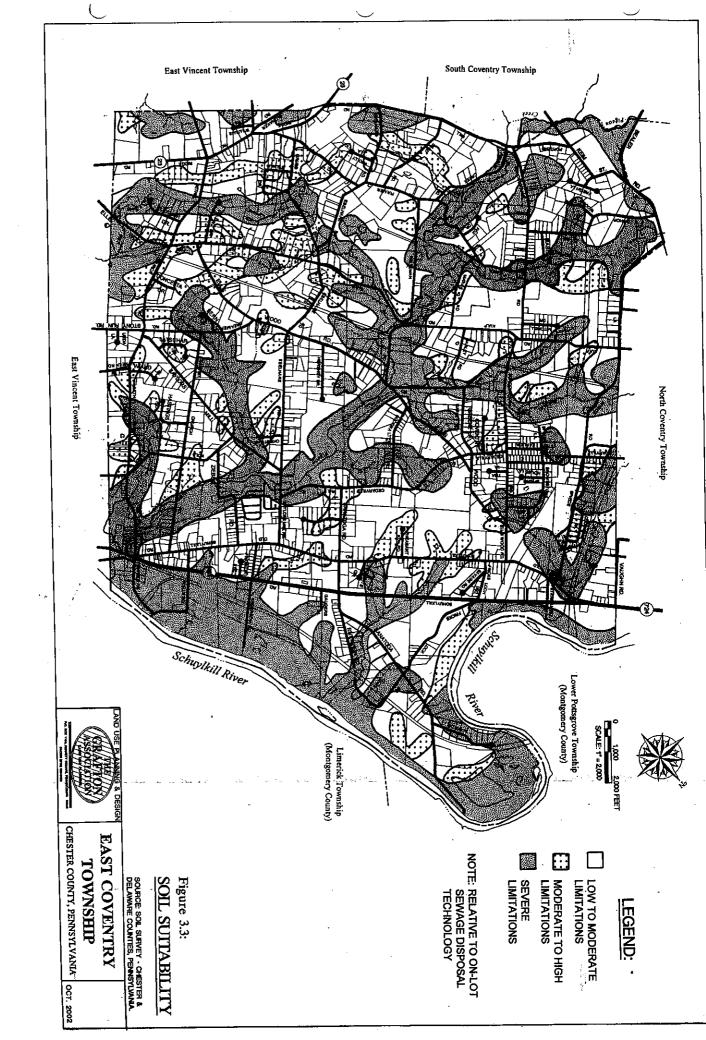
The main limiting features of the soils for drainage fields for septic tanks are restricted permeability, steepness of slope, shallowness over bedrock, and the presence of a seasonally high water table. Soils that have a rating of slight generally have few or no limitation that affect their use for disposal fields of sewage effluent. Those that have a rating of moderate may be borderline and should be investigated carefully at the exact site where a disposal field is proposed. For soils that have a rating of severe, especially careful investigation is needed at the site of the proposed disposal field to see if it can function properly.

Due to the sometimes wide range of characteristics within each soil series, and within the individual mapping unit as described in the Chester County Soil Survey, the categories identified should be considered as a generalization only. Soil suitability testing should be conducted by an authorized soil scientist to determine the soil suitability for a specific site. This is also important because of the possibility of local inclusions of soils that are not delineated in the soil survey.

The table below identifies all soils and soil series which are located within East Coventry Township. In addition, it identifies the soil groups and descriptions as defined by the Pennsylvania Department of Environmental Protection. Each soil group is characterized by conditions that indicate suitability for on-lot sewage disposal.

Table 3.1
Soil Series Suitability for On-Lot Sewage Disposal

Soil Series	DEP Soil Group	Drainage Characteristics & On-Lot Suitability
Bucks * Glenelg Penn * Penn-Lansdale *	7	Suitable; deep well-drained 1 inch of water in 30 to 45 minutes Moderate limitations



Bowmansville * Chewacla Congaree Rowland * Wehadkee *	13	Unsuitable; poorly drained soils; Floodplain soil, flood hazard area; Severe limitations
Edgemont Glenville Lehigh * Readington *	14	Marginal; well-drained on uplands; poorly drained, high water table; Moderate to high limitations
Croton * Worsham	15	Unsuitable; poorly drained on uplands; Seasonable high water table; Moderate to high limitations

^{*} Denotes soils group is located in East Coventry Township Source: Chester County Soil Survey Technical Manual for Sewage Enforcement Officers

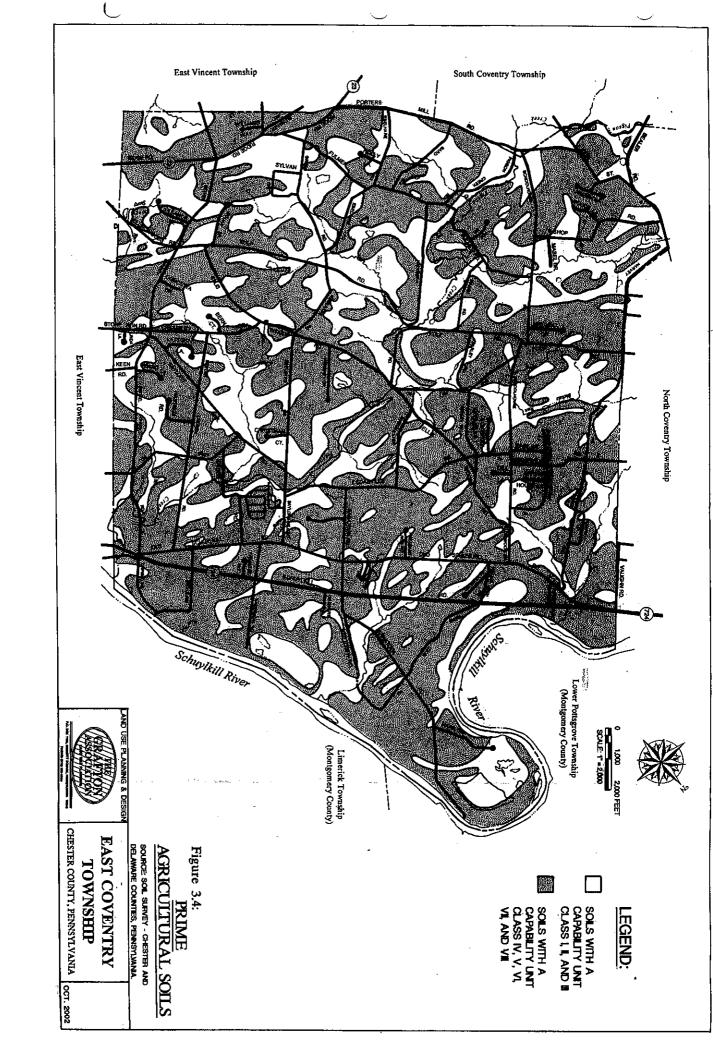
Prime Agricultural Soils

The capability classification is a grouping of soils to show their suitability for most kinds of farming. It is a practical classification based on limitations of the soils, the risk of damage to the soils when used, and the way they respond to treatment. Class I, II and III soils are the prime agricultural soils. The following Table indicates the prime agricultural soils found within East Coventry Township, and Figure 3.4 illustrates their relative locations. The Chester County Soil Survey provides a more descriptive analysis of the Capability Unit System.

Table 3.2

Prime Agricultural Soils

Soil Series	Map Symbol	Soil Class	Capability Unit
	_	_	
Bowmansville	Во	j	lw-1
Bucks	BxB2	11	lle-2
Penn	PmB2	II	lle-5
Penn	PmC2	111	IIIe-4
Penn-Lansdale	PtB2	11	lle-5
Penn-Lansdale	PtC2	Ш	IIIe-4
Readington	RdA	II .	Ilw-1
Readington	RdB	[]	lle-6
Readington	RdB2	li	lle-6
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	_	•1	llw-2
Rowland	Ro	11	
•	Rp	ll l	llw-2
Rowland	ıγp	= -	

Source: Chester County Soil Survey

Based on a review of the soil conditions and existing land use patterns of East Coventry Township, it can be concluded that approximately 58.2% (4100 acres) of the total land area could be classified as prime agricultural lands. However, approximately 32% (2250 acres) of the total undeveloped land area within the Township could be classified as prime agricultural lands.

The Pennsylvania Agricultural Area Security Act (Act No. 43 of 1981) gives special consideration to farmers who voluntarily participate in a local "agricultural area or district". An agricultural area is defined as a unit of 500 or more acres of land utilized for agricultural production. East Coventry Township has adopted an Ordinance establishing an Agricultural Security Area.

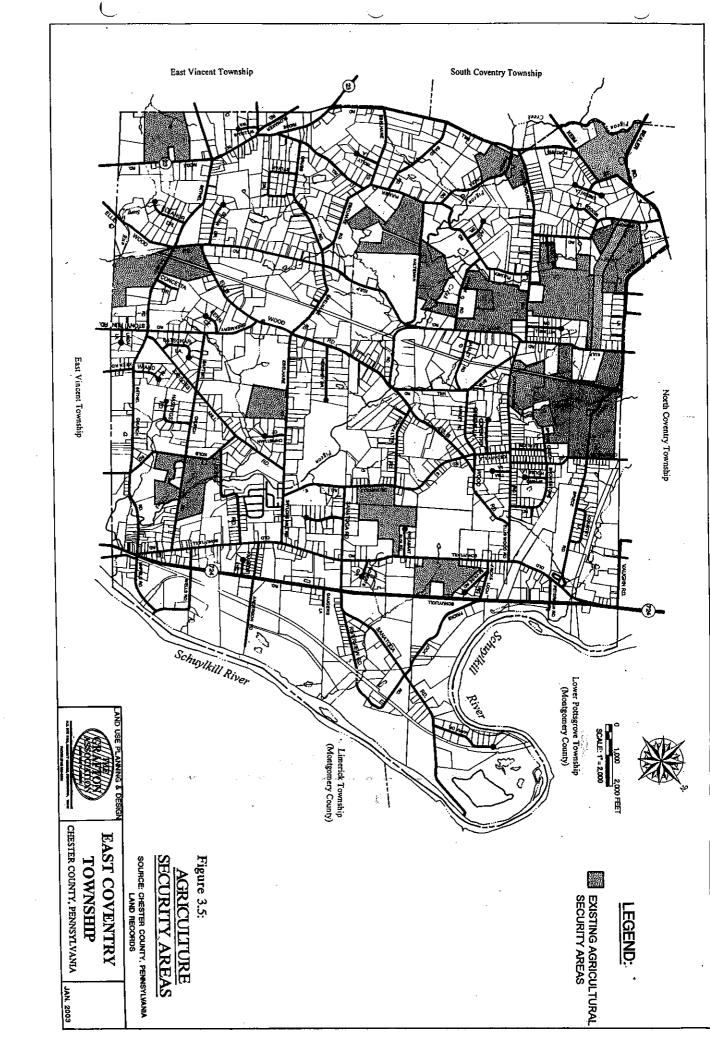
Figure 3.5 depicts the limits of the existing agricultural security areas protected under Pennsylvania Act 43.

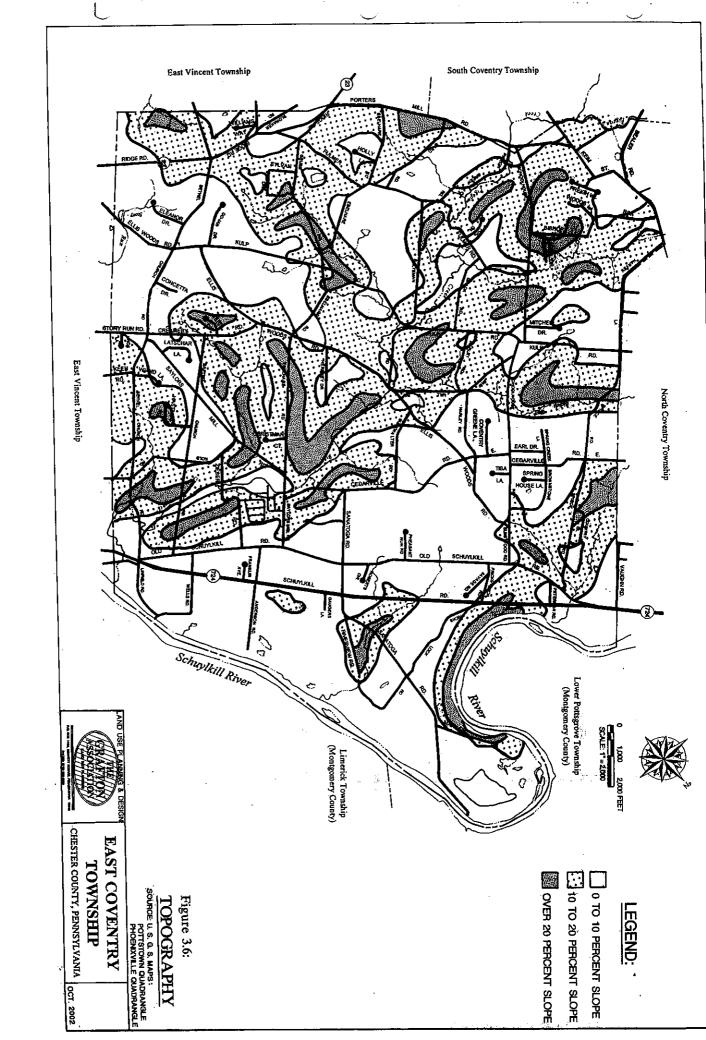
Topography

East Coventry Township is comprised of a variety of topographical conditions. The Township consists of slight to moderate slopes in the northern and southeastern portions and moderate to steep slopes in the central and northwestern portion. The elevations within the Township range from 120 to 445 feet above mean sea level. The lowest elevation is found along the Schuylkill River in the northeastern portion of the Township and the highest elevations are in the southern portion of the Township.

Figure 3.6 depicts the generalized topographic conditions of the Township by categorizing the degree of slope. Slope is defined as the change in vertical rise divided by horizontal distance. Based on the topographical analysis on Figure 3.6, the following estimates have been derived:

- Approximately 50% of the land area within the Township has slopes ranging between 0-10%.
- Approximately 35% of the land area has slopes ranging between 10-20%.
- Approximately 15% of the land area has slopes exceeding 20%.





Hydrology

East Coventry Township is divided into various drainage basins, established by the topography of the land and the need for surface waters to find their way from higher elevations to lower ones. A drainage basin or watershed is a regional area bounded peripherally by water parting and ultimately draining into a particular watercourse or body of water. The boundaries of a drainage basin are defined by natural ridge lines which separate one drainage basin from another. East Coventry Township is located within the Schuylkill River Regional Drainage Basin. The Township is comprised of four (4) major drainage basins. These drainage basins are comprised of a variety of minor and subminor basins.

Figure 3.7 of this Plan geographically depicts the locations of the major drainage basins within the Township. These major drainage basins are identified and described as follows:

Northern Schulylkill River Drainage Basin

This drainage basin is located in the far northern portion of the Township and encompasses 2181 acres or 31% of the land within the Township. The Northern Schulylkill River Drainage Basin consists of numerous unnamed tributaries to the Schuylkill River. It should be noted that the Schuylkill River is listed as a Warm Water Fishery, Migratory Fish water. In addition, the Schuylkill River is designated as a Pennsylvania Scenic River.

Pigeon Creek Drainage Basin

This drainage basin is located in the south-central portion of the Township and encompasses 4250 acres or 60.4% of the land area within the Township. Pigeon Creek is a major tributary to the Schuylkill River. Pigeon Creek is identified by the Pennsylvania Department of Environmental Protection as a High Quality Trout Stocked Fishery.

Stony Run Drainage Basin

This drainage basin is located in the southwestern portion of the Township and encompasses 395 acres or 5.6% of the Township. Stony Run is a significant tributary to the Schuylkill River. Stony Run is identified by the Pennsylvania Department of Environmental Protection as a High Quality Trout Stocked Fishery.

French Creek Drainage Basin

This drainage basin is located in the southeastern portion of the Township and occupies 214 acres or 3.0 % of the total land area. French Creek is a major tributary of the Schuylkill River and is designated as a Pennsylvania Scenic River. It is identified by the Pennsylvania Department of Environmental Protection as a High Quality Cold Water Fishery.

Drainage basins provide a wide variety of functional purposes and uses to any municipality. East Coventry Township has recognized the need to preserve the environmental significance and integrity of the land areas adjacent to the major stream segments within the Planning Area. These stream segments include Pigeon Creek, Stony Run, French Creek, and the Schuylkill River. By preserving these particular areas from intense land development activity, it will promote a conservation practice of land use, protect the ecology, control flooding and erosion, preserve environmentally sensitive land areas, reduce air and stream pollution, and it will preserve the archaeological and historical integrity of the area.

Floodplains

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Floodplains provide ecological, aesthetic and recreational benefits. Their primary function, however, is to provide an area that will accommodate the floodwaters of a given storm. The National Flood Insurance Program has defined the floodplain by the 100 year or base flood which has a one percent chance of being equaled or exceeded in a given year. The Township Board of Supervisors has adopted the regulations for floodplain management established by the Federal Emergency Management Agency for the following purposes:

- To promote the general health, welfare, and safety of the community.
- To encourage the utilization of appropriate construction practices in order to prevent or minimize flood damage in the future;
- To minimize danger to public health by protecting water supply and natural drainage.
- To reduce financial burdens imposed on the community, its government units and its residents by preventing excessive development in areas subject to flooding;
- To comply with federal and state floodplain management requirements.

The minimum requirements established under the National Flood Insurance Program prohibits new construction or substantial improvements to existing structures, fill or encroachments within the floodway. In addition to the development controls and restrictions specified by the Federal Emergency

Management Agency, East Coventry Township also regulates floodplain development through the adoption of the Township Building Code (BOCA), Zoning Ordinance and Subdivision Land Development Ordinance. Figure 3.7 illustrates the floodway areas, the special flood hazard areas inundated by the 100 year flood, and the areas inundated by the 500 year flood, as established by the Federal Emergency Management Agency on the East Coventry Township Flood Insurance Rate Map.

Wetlands

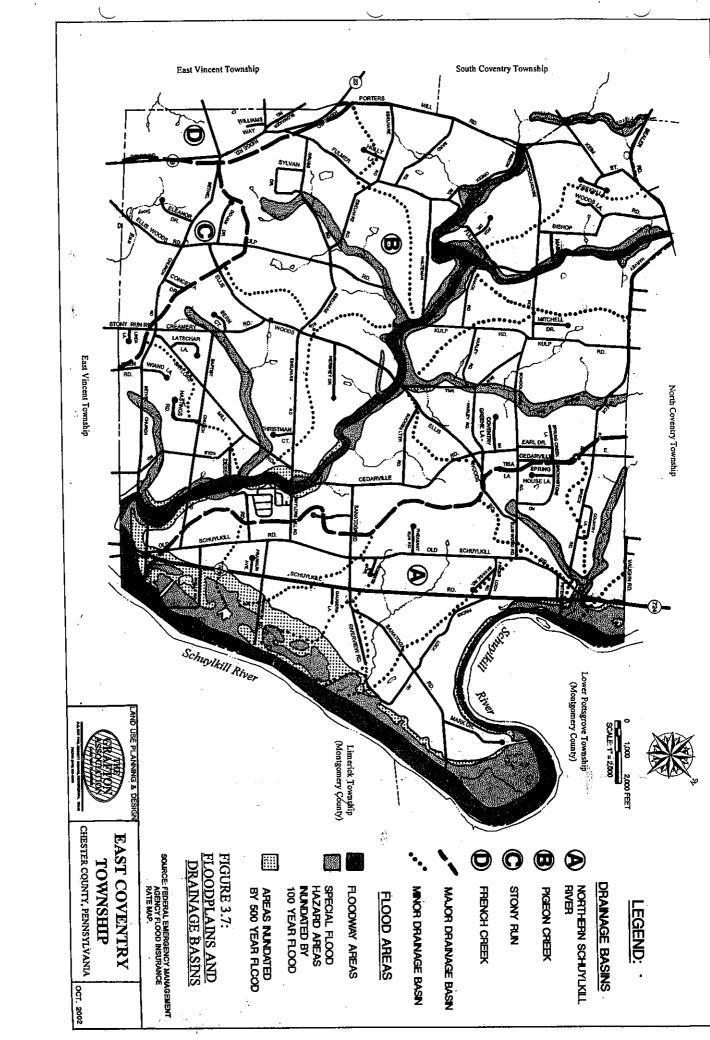
The U.S. Army Corps of Engineers in conjunction with the U.S. Environmental Protection Agency has defined the term "wetlands" as follows: "Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated conditions. Wetlands generally include swamps, marshes, bogs and similar areas. The three major characteristics of wetlands include vegetation, soil and hydrology."

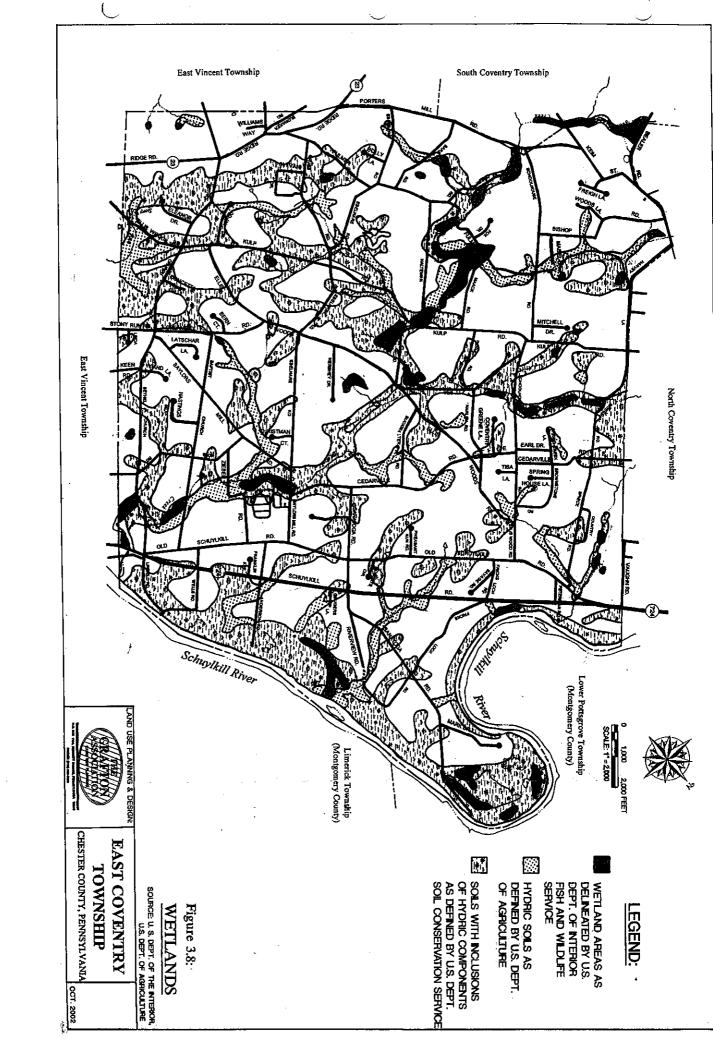
Wetlands and deep water habitats are essential breeding, rearing and feeding grounds for many species of fish and wildlife. Wetlands also perform important flood protection functions by decreasing the peak flood flow and spreading out the discharge over a longer period of time. In this manner they act as a natural form of stormwater detention required in a new development. Wetlands also act to remove sediment and pollution from stormwater by this reduction in the flow rate. Figure 3.8 of this Plan depicts the locations of wetlands which have been delineated by the U.S. Department of Interior, Fish and Wildlife Service.

Section 404 of the Clean Water Act requires that anyone interested in depositing dredged or fill material into waters of the United States, including wetlands, must apply for and receive a permit for such activities. The U.S. Army Corps of Engineers has been assigned the responsibilities for administering the Section 404 permitting process. Activities in wetlands for which permits may be required include but are not limited to: placement of fill material; ditching activities when the excavated material is side cast; levee and dike construction; land clearing involving relocation of soils material; land leveling; road construction; and dam construction.

Biotic Resources

Woodlands in East Coventry Township are one of the elements that creates rural character. Approximately 440 acres are comprised of woodlands, which are defined as being of at least 5 contiguous acres in size. There are also areas of less than 5 acres also in wooded condition, making the overall image





of woodlands even greater. Figure 3.9 shows the location of the defined woodlands in the Township. It is recommended that the Township enact code amendments that protect hardwood and softwood trees of calipers greater than 6 inches. The extent of agricultural lands within the Township has diminished the amount of woodlands currently, thus increasing the importance of preserving the remaining areas. The size and health of the woodlands is critical to maintaining biodiversity in the Township.

The Township's woodlands perform several valuable functions. Habitat for birds and small mammals is provided, even in relatively small areas. Many of the remaining woodlands represent areas that are not suitable for agriculture, either for wet soils or steep slopes conditions. In these cases, the presence of woodlands stabilizes the soil, preventing or minimizing erosion.

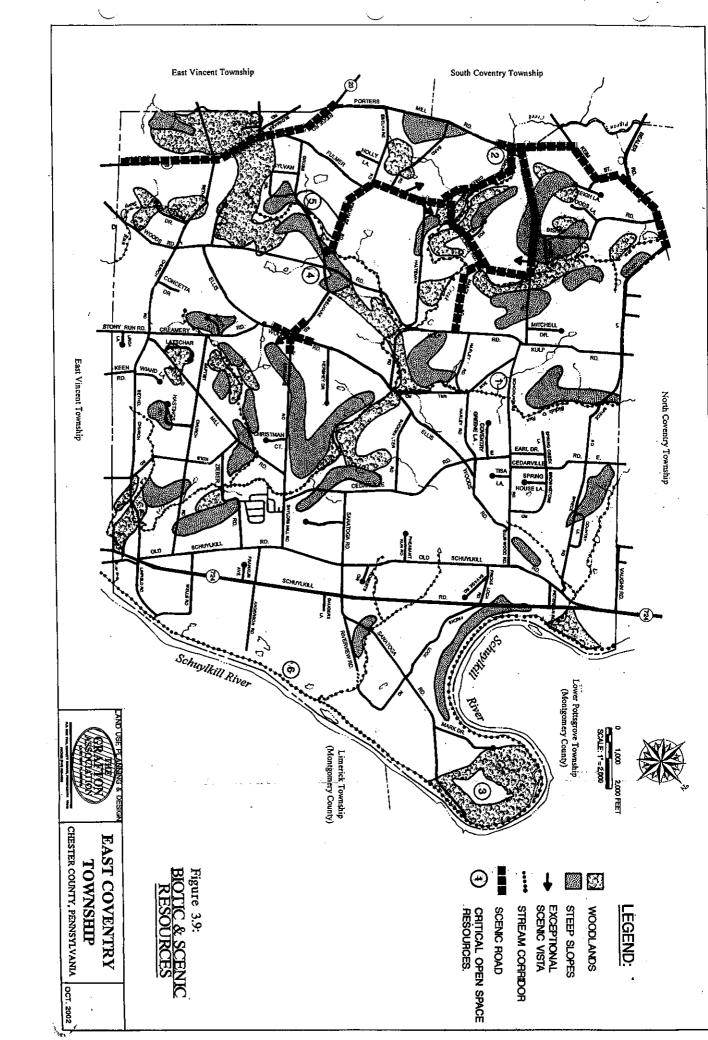
Wildlife habitats are somewhat limited, due to the above-mentioned limited size of woodlands and sometimes isolated conditions. Wildlife that is able to take advantage of such lands must have wide tolerances. Common and adaptable animals, such as deer, do well in the fragmented habitats found in the Township. The Township's cold water streams may be the highest quality aquatic habitats. These streams have better populations of fish and invertebrates than do warm water fisheries. Generally, water quality is the most critical habitat component in streams. Implementing protection strategies for water resources and woodlands will help ensure that wildlife habitat is maintained in the Township.

Scenic Resources

The East Coventry Township Open Space, Recreation and Environmental Resources Plan of 1992 has identified several scenic roads within the Township. The scenic roads were selected on the basis of panoramic views of the countryside and for their visual interest. **Figure 3.9** illustrates the location of these roads, as well as significant vista points to be found. Most of the scenic roads and vistas are located in the southeastern half of the Township. In order to preserve them, the Township should consider development regulations that requires proposed development to identify such resources and to propose methods to ameliorate their degradation.

Historical Resources

Another significant contributor to the aesthetic quality of the Township is its historic residences, bridges, walls, barns, institutions and other structures.

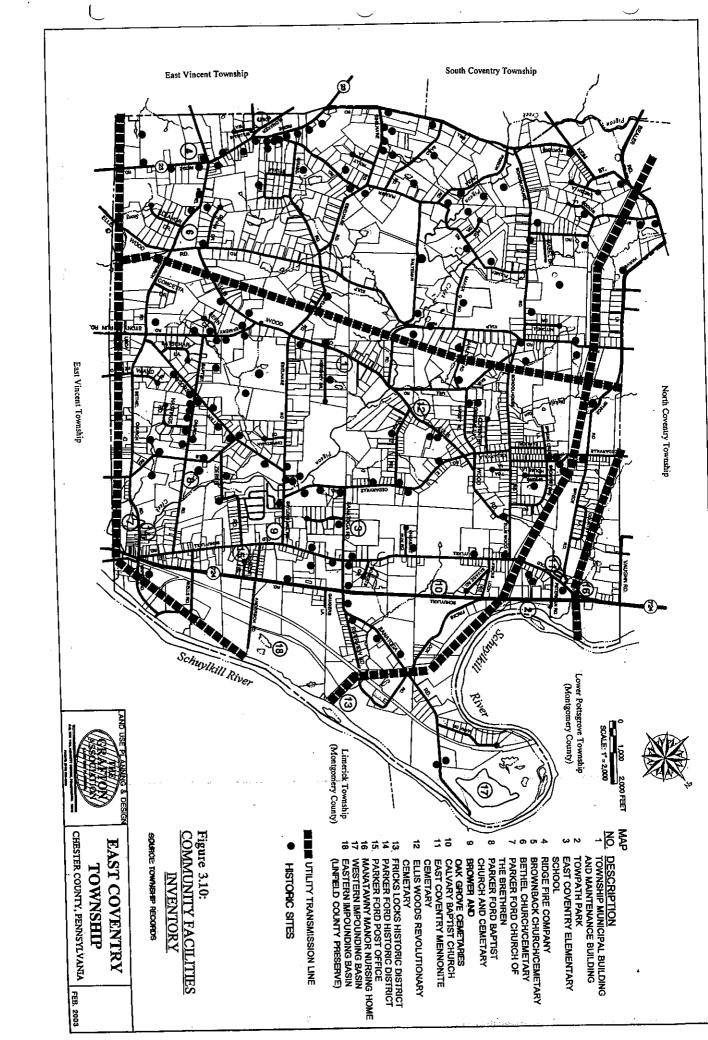


Together with the rolling topography, woodlands and streams, the historic resources make up what many consider the rural quality East Coventry Township. As development of the land occurs, these historic resources are often eliminated, if not neglected. Methods to retain and preserve historic structures should be a priority. See Chapter 5, Goals and Objectives, and Chapter 13, Implementation for proposals to preserve and adaptively reuse the Township's historic structures.

There are two historic districts listed by the Pennsylvania Historic and Museum Commission within the Township. They are the villages of Parker Ford and Fricks Lock. An Historic Sites Survey conducted in 1981 revealed about 250 houses in the Township were over 50 years of age. About 42 of these houses make up the village of Parker Ford.

The Fricks Lock district consists of approximately 18 acres along the Schuylkill River. Within this historic district are 23 buildings and 8 structures that comprise a largely intact agricultural hamlet, spanning a period of approximately 210 years from 1757 to 1967. The district's buildings and structures provide an excellent example of the local evolution of rural domestic and agricultural architecture. This district is also significant for its role as a small commercial center that served the local agricultural population and boatmen traveling on the Schuylkill Canal.

In addition to the historic districts, the Ellis Woods Cemetery is a Revolutionary War cemetery with local historical interest. The School House located on Schoolhouse Road is also another site with local historical interest. However, there remain other historic buildings that are yet to be inventoried and this is the task of the Historical Commission appointed by the Board of Supervisors. The Commission coordinates with the Chester County Conservancy and the Chester County Historical Society regarding the inventory process. Figure 3.10 locates the historical structures inventoried thus far. An additional component of historic concern is that of archaeological sites. It is known that early native populations inhabited areas within most of Chester County. Often the sites were located along stream banks. The Pennsylvania Historical and Museum Commission has established an inventory of such sites, but, for reasons of protecting the sites from damage and deterioration, has not published any mapping. It can be presumed that such sites are to be found in East Coventry Township, particularly near stream corridors, and that means to protect them should be established. The preservation and protection of stream corridors for floodplain and wetland reasons often serves to preserve the archaeological sites as well.



Summary

The natural features of East Coventry Township are varied. As this Chapter illustrates, many different features make up the natural image one has of the Township. Some of the elements are protected from development by existing regulatory means. Others are less so. The Township should ensure that the features that are valuable to the environmental, visual, and recreation interests of the community are subject to constant preservation. The mapping of these elements will assist the Township in making decisions regarding future development. Growth will occur in East Coventry Township to some degree, as has been the case over its history. Knowing what areas are in the most need of protection and what areas can accept a reasonable amount of development is the goal of mapping these resources. The channeling of growth should allow for the careful and continued stewardship of the Township's valuable resources.

CHAPTER 4 COMMUNITY FACILITIES AND SERVICES

Of the many responsibilities of municipal government is that of insuring the provision of basic facilities and services to its residents. The need for facilities and services will grow as the Township's population increases. In order for the Township to be prepared to meet these needs, both in the short term and long, an analysis of the existing public facilities and services should be undertaken as the first step in the comprehensive planning process. The purpose of this chapter is to assess the extent of current facilities, programs and services, such as parks and recreation, public education, police, fire, emergency, public water supply, and sanitary sewer systems.

Open Space, Recreation and Environmental Resources Plan

East Coventry Township adopted the above-referenced plan, prepared by Rettew Associates, Inc. in 1992. This document addresses many of the community facility and services elements, particularly the parks and recreation issues related to this chapter of the Comprehensive Plan. Due to the complete and thorough manner in which the Open Space Plan was prepared, it is hereby expressly incorporated into and considered part of the Comprehensive Plan. It is a valuable resource, which will be summarized in this chapter regarding relevant topics. Of particular interest are sections on park and recreation facility analysis, recreation programs, open space and greenway development.

Standards for Recreational Lands

Various organizations have adopted standards which provide a measurement for determining the amount of area needed for different types of parks on the basis of population served. Chester County proposes the following standards in Table 4.1 for regional, sub-regional, community and neighborhood parks. These standards provide a framework for understanding the parkland needs of a municipality, as well as expressing the idea that each type of park fulfills a different function. Municipalities need a range of parks to satisfy the residents' needs.

<u>Table 4.1</u>

<u>Chester County Park Standards</u>

Park Type	Acreage Standard	Min. Size	Service Radius	Service Area	Max. Pop.
Regional	20a/1000	1000a	30 mi/1 hr.	2800 sq.mi.	none
Subregional	8.5a/1000	100a	7.5 mi/1/4 hr	177 sq.mi.	100,000
Community	4.5a/1000	20a	2.5 mi/5min.	20 sq.mi.	25,000
Neighborhood	3.5a/1000	5a	0.5 mi/12 mir	n 1 sq.mi.	5,000

Note: a/1000 means acres per 1000 population

Source: Chester County Open Space and Recreation Study

Existing Recreational Facilities and Programs

Generally, there are two types of recreational lands; those designed and constructed for active recreational uses and those that are allowed to remain in a natural state to be used for passive recreational pursuits. Active recreation facilities are intended for athletics, competitive sports, and other vigorous activities. Baseball, football, soccer, basketball, tennis, and track and field events are examples of recreational activities considered active. Additionally, active recreation often includes accommodations for spectators. Passive recreation is characterized by a general lack of structured facilities and often occurs in the natural environment. Examples of passive recreation include hiking, jogging, cycling, bird watching, and picnicking. Variables affecting all recreation are whether the activity is conducted indoors or outdoors, seasonally or year-round, or by teams or individuals. Some recreational activities consume vast amounts of land, whereas others require relatively small spaces. Open spaces and facilities can range in size from large areas serving regional populations to small scale facilities serving a neighborhood or community.

In East Coventry Township there are no regional or sub-regional parks, however there are several in nearby townships that are within reasonable service radii of the Township. French Creek, Evansburg, and Marsh Creek State Parks are within a one hour driving distance for Township residents. These three parks provide a variety of recreational opportunities, passive in nature, including hiking and nature trails, biking, picnic and play areas, and fishing. French Creek and Marsh Creek feature swimming areas. In addition, French Creek offers camping accommodations and includes the Hopewell

Furnace National Historical Site, while Evansburg and Marsh Creek have youth hostels for overnight stays. Also within regional access is the Valley Forge National Historical Park, located in eastern Chester County on the Schuylkill River.

Within a 15 minute drive for Township residents is a sub-regional park, Warwick County Park, making it accessible on a daily basis for residents. Facilities there include hiking, biking, equestrian, and nature trails, camping, fishing, and picnic and play areas. The table below identifies the agency responsible for the regional and sub-regional parks, and the size and location of each.

<u>Table 4.2</u>

Park	Agency	Size / Location
French Creek	DEP, Bureau of State Parks	7339 acres, Berks and Chester County border.
Evansburg	DEP, Bureau of State Parks	3349 acres, Skippack Creek in Montgomery County
Marsh Creek	DEP, Bureau of State Parks	1705 acres, Marsh Creek Lake in Upper Uwchlan Township
Warwick	Chester County	433 acres, in Warwick Township south of Route 23

On a more local level, some municipalities in Chester County provide community parks. As shown in Table 4.1, a community park can serve a population of 25,000 and should be a minimum of 20 acres. The primary function of this size park is to provide a local place for organized, group activities, and a place for individual sports and exercise. They tend to emphasize active recreation and are more developed than neighborhood parks. Typical facilities found in community parks are athletic fields, courts for tennis or volleyball, swimming pools, and picnic pavilions. Ideally, they should be located central to the municipality's population so as to provide convenient and safe access. A variation of the community park can be a local school, either middle or high, which often has facilities similar to those found in a park, with the addition of indoor space for court games, classes and meetings. Some municipalities have found it advantageous to acquire additional lands adjacent to a school to develop a coordinated recreation area.

East Coventry Township owns lands which meet some of the criteria of a community park, however, no development has occurred with the exception of Towpath Park. The Township owns the Heyser Tract, for which a master plan has been prepared, comprising 32.6 acres along the Schuylkill River. The Township also owns the 17.9 acre tract on Ellis Woods Rd., where the municipal building and parking are located on 3 acres. There is currently being prepared a park master plan for that site, known as Ellis Woods Park. Future development of this tract with recreational facilities may be appropriate, since its location is reasonably central and the area offers expansion potential.

Other facilities outside the Township also offer community park facilities. The largest of these is the Owen J. Roberts School District High School and Middle School complex in South Coventry Township. Here are found an auditorium, two gymnasiums, an athletic stadium with track, three baseball fields, one hockey/soccer field, five tennis courts and an indoor swimming pool. The fields at these two schools are being updated. The School District also operates the East Coventry Elementary School on Sanatoga Road within the Township which has two all-purpose fields and basketball courts. Another facility is the Kenilworth Park in northern North Coventry Township. This 22 acre park contains two tennis courts, three baseball fields, a playground, one basketball court, and picnic areas.

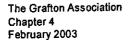
Neighborhood parks are smaller than community parks, and both are commonly owned by municipalities. The County recommendation that they be within walking distance and a minimum of five acres of size orients them much more to the local level. They may have areas for informal field games, some court games, sitting areas and play equipment for children. East Coventry Township does not own any parcels that meet the typical criteria for a neighborhood park. Towpath Park, 7.5 acres along the Schuylkill River, obviously meets the acreage recommendation but is not neighborhood oriented. The Township has developed Towpath Park with a picnic pavilion, grass volleyball court, a boat launch, tot lot, and walking paths. Connecting the Towpath Park to the Heyser property is the Faulk tract, which the Township also owns, along with the Wade Tract, 6.8 acres, located on the Schuylkill River. Neither of these two riveroriented parcels has the size to serve a regional need or the location to serve a neighborhood, but collectively become a significant river front park location. Two elementary schools are somewhat serving as neighborhood parks, since they are located near residential areas. The East Coventry Elementary School on Sanatoga Rd. and the East Vincent Elementary School located in that township each provide the local community with developed recreational facilities. The Township has recently acquired the Maack property, located at Maack and Kulp Roads. It is 59.9 acres in area and is currently being farmed.

Another form of recreational land is the greenway, a linear corridor of open space that is generally thought of as connecting various features, such as neighborhoods, parks, schools, community institutions, shopping, or even employment centers. Most are used for hiking, biking, equestrian, or cross country skiing. There are no standards for quantity needed by a community, however, standards do exist for such facilities as pathways, access controls, identification and maintenance. Greenways are often the result of abandoned rights-of-way such as roads or railroads or, in many cases, stream corridors. By their nature, they make excellent pedestrian or bicycle corridors for commuting, shopping, and recreation. East Coventry Township owns no greenways, but there are numerous private greenways throughout the Township which are privately owned and used for equestrian purposes. As opportunities present themselves, the Township should evaluate situations where rights-of-way are being abandoned or could be abandoned and made available for greenway use.

Privately owned facilities are often found in a community, providing recreation on a commercial basis for nearby residents. These can take the form of YMCA/YWCA centers, fitness centers, bowling alleys, golf courses or gun clubs. Near East Coventry Township, there are a variety of opportunities for golfing, both public and private courses, with the closest golf courses being the Kimberton Country Club in East Vincent Township, the private Stone Wall Golf Course in East Nantmeal Township and Spring Hollow in East Vincent near Spring City. Additionally, in nearby Montgomery County, there are Waltz Golf Course (miniature golf) and the Turtle Creek Golf Course. The closest private course is Bellewood in North Coventry Township.

Recreational Needs

The rural character and low population density of East Coventry Township have contributed to the lack of pressure for additional park and recreation facilities. Many of the recreation needs of residents are satisfied on the relatively large residential lots. Various land acquisitions and development have been discussed earlier. In several cases, the properties are not located so as to be beneficial to the neighborhoods. In the case of the municipal building, potential for centrally located facilities is good, should the Township decide that a community scale park is needed. Statistically, this could be debated on the basis of a low population, however, the standards should be applied to any portion of intended population to be served. In this case, the development of the municipal building site with facilities that range somewhere between a community park and neighborhood park would be appropriate. Potential for future expansion of the site should be investigated and preserved for eventual need.



From a local perspective, future land development plans for residential projects should be tied to the question of open space proportionate to the development. Care should be taken to locate these parcels so that in some cases they may be combined with others, in order to form larger tracts. Where possible, neighborhood parks may serve more than one neighborhood and function as transition zones between them. In all cases, lands accepted should be of high quality, useable for both active and passive recreation, and easily maintained.

Water Supply Plan

The ability to provide public water and sewer facilities are two major determinants of growth management. As growth pressures increase and plans are formulated to control it, it becomes important to have reliable sources available to permit beneficial growth strategies. Currently, most of the Township is developed at a low residential density, with water service provided by on-lot private wells. However, there are two exceptions to this pattern. Along Route 724 (Schuylkill Rd.) at both ends as it enters East Vincent and North Coventry Townships, there are small areas that have public water. Parker Ford area is within the franchise area of the Pennsylvania American Water Company. This area is also adjacent to the Coventry Terrace Mobile Home Park, which has its own individual facility well. The second area is at the northernmost part of the Township, on both sides of Route 724 at the border of North Coventry Township. This small area has both public water and public sewer.

Figure 7.3, titled "Existing and Proposed Public Sewer and/or Water Service Area", located in Chapter 7, Land Use Plan, provides the location of the franchise areas for sewer and water utilities. It does not imply that all properties within the designated area are currently served, but that the ability to provide service is available.

The vast majority of the Township derives its water from groundwater wells, which have been able to meet the needs of the area satisfactorily. As demands on the groundwater increase, the Township should become vigilant in monitoring the quality of groundwater to insure that no contamination occurs from infiltration of harmful substances. In 1988 the Federation of Northern Chester County Communities prepared a Water Resources Management Study, in which it was found that groundwater supplies were generally adequate to meet demands. East Coventry Township should continue to participate with the Federation in studies that update the previous report and monitor ongoing development.

The Pennsylvania Municipalities Planning Code requires that a water supply plan include provisions for lawful activities which may affect the water supply sources. In a case like the extraction of minerals from the ground, codes must require the replacement and restoration of the supply if affected. Secondly, the same provisions apply to commercial agricultural operations. In both cases, the municipal zoning ordinance and subdivision and land development ordinance should address these operations and preclude adverse impact. Each of these ordinances should be strengthened with regard to restoration of sites subject to mineral extraction. This has not been a major issue in the past, but should be addressed in future amendments to these two codes. Currently, there are provisions for activities in floodplains. These need to be expanded as they relate to the protection of water supply sources.

Sewer Facilities

Much like the pattern of on-lot wells in the Township, the provision of wastewater treatment is often by on-lot septic systems. The density of development in the Township allows for adequate spacing of the wells and systems on each lot, a factor which must be maintained in order to avoid contamination of wells. One of the two areas with public water service also has public sewer service. The northern area adjacent to Route 724 is the only such area of the Township with public service and this is provided by the North Coventry Municipal Authority Wastewater Treatment System. This is a limited service district dependent on a recently agreed upon agreement with North Coventry Township. With regard to local systems, East Coventry Elementary School and Coventry Manor Mobile Home Park each have on-site individual systems. There is also a community treatment system for Cedarville Acres, serving 12 residential connections. The current pattern of disposal is expected to continue into the future. Maintenance of on-lot treatment systems is critical to maintaining the high quality of groundwater. Without continual monitoring and maintenance, typical systems will fail over time and begin to discharge effluent into the ground. The Township currently has an ordinance in effect that requires the owner of a septic system to maintain and pump out the tank at least every three (3) years. This is a significant piece of legislation that will aid in preserving the stability between septic systems and water well sites. The Township should continue to be vigilant in enforcing this ordinance. East Coventry Township has approved a new 537 Plan and is awaiting Department of Environmental Protection approval. Growth areas recommended in this Comprehensive Plan, Chapter 7 Land Use Plan, are consistent with those of the 537 Plan.

Public Education

East Coventry Township is located within the Owen J. Roberts School District. This district is comprised of a total of 3623 students from East Coventry, North Coventry, South Coventry, East Vincent, West Vincent, East Nantmeal, and Warwick Townships. The Owen J. Roberts Middle and Senior High Schools are located within South Coventry Township, near the intersections of Routes 23 and 100.

The only District school located within the Township is the East Coventry Elementary School, on the west side of Sanatoga Rd., about 1000 feet south of Old Schuylkill Rd. The school houses kindergarten and elementary grades. The current student population is 399, and the current capacity of the facility is estimated to be 600 students. The students who attend this school live both within and beyond the Township boundary. There are some students in the southwest area of the Township who attend the Vincent Elementary School.

School facilities are currently meeting the needs of the Township. As the population of the Township increases in the future, coordination should occur with the School District regarding plans for addressing increased school populations, whether the plans include location of a new school site or the expansion of the existing facility

Public Safety

The East Coventry Township Police Department is currently staffed by five (5) full-time police officers and one (1) part time officer. The Regional Land Use Plan prepared by the Federation of Northern Chester County Communities compares its municipal police forces by township and borough. It has not been updated since its publication in 1996, but based on a 1992 population estimate of 4403 residents and for comparison purposes only, East Coventry Township had 0.68 officers per 1000 residents. In contrast, the two highest rates were Spring City with 1.67 and East Vincent with 1.44 officers per 1000 population. The lowest rate in the Federation, of municipalities with officers on staff, was West Vincent with 0.66. The Federation average was 0.91 per 1000. Since the publication of that plan, East Coventry Township has added several police officers to its staff, thus increasing the level of public safety to residents. It should also be noted that the Pennsylvania State Police provide additional coverage to the Township during off hours and emergencies.

The 1995 Comprehensive Plan contained the information that approximately one third of the Township municipal budget was utilized for public safety. This fact, accompanied by the relatively low rate of police coverage, has caused the

Township to seek alternative solutions to the police protection needs. The hiring of a police chief and an additional officer brings the total force to one chief, four officers and one part time officer. In order to supplement the level of service, the Township has entered into mutual aid agreements with adjacent municipalities. Public safety is an expensive service for any municipality, because of the costs of salary, vehicles and specialized equipment. Any viable enhancement to providing for the safety of residents and business should be explored.

Fire Protection

The Ridge Fire Company, located along Route 23 (Ridge Rd.) near Bethel Church Rd. in southern East Coventry Township, provides primary fire protection coverage throughout the Township. In addition, the Liberty Fire Company (Spring City), the Kimberton Fire Company (East Pikeland), the Ludwigs Corner Fire Company (West Vincent), the Norco Fire Company (North Coventry), Goodwill Fire Company (Pottstown) and the Linfield Fire Company (Limerick) are available to provide fire protection assistance in emergencies. Due to the fact that most of the Township is not served by a public water system, and therefore fire hydrants, fire companies must rely on being able to bring tankers to the site of a fire. With the location of the surrounding fire companies, the Township is covered by their service areas, a maximum of four miles from a station, as recommended by the Insurance Services Office, formerly known as the National Board of Fire Underwriters.

Emergency Services

Ambulance service is provided by the Goodwill Fire Company in Pottstown, and companies in Spring City and Phoenixville. Spring City Ambulance Company is the only company located within the Federation of Northern Chester County Communities. There are companies outside this boundary, and the combination of service areas and the recommended response time of 10 minutes means most areas can be served adequately. Topography, weather, traffic and road conditions play a role in getting ambulance units to the scene of an emergency.

There are no hospitals with the Township, however, the region is well served with such facilities. The two closest hospitals are found in Pottstown and Phoenixville. Pottstown Memorial Medical Center provides about 200 patient beds as well as other outpatient and emergency services. Phoenixville Hospital provides about 175 beds and has outpatient and emergency services. In addition, Brandywine, Chester County, and Reading Hospitals are located within a half-hour driving time.

The Limerick Nuclear Generating Station is across the Schuylkill River from the northern areas of East Coventry Township. The Township is located within the 10 mile Emergency Planning Zone of the facility. Because of the potential of an emergency at the site, an emergency management plan has been prepared by the Township and residents would be instructed as to how to react. In addition, state and county plans have been developed and exercised for response to an accident at the Limerick Nuclear Generating Station. Each of these plans were designed to coordinate and support emergency actions that may be necessary should an accident occur. The Township should continue to educate its residents on procedures in the event of an actual emergency.

Summary

East Coventry Township, in general, is well served with community facilities, recognizing that it is a rural community, with both agricultural and low density residential character. The relatively low population and dispersion of residents makes it infeasible and uneconomical to provide services that a more urbanized township might expect. The basic needs of the community are being met, including education, utilities, health and safety. One area that the Township should continue to improve is the provision of parkland. The Township has acquired two open space parcels, the Maack tract (55 ac.) and the Faulk tract (12 ac.) since the preparation of the Open Space Plan. Plans are also underway for development of the centrally located Ellis Woods park at the municipal building. This will improve the provision of parkland to all residents for participation in organized, as well as, passive recreation pursuits.

9.85

CHAPTER 5 GOALS AND OBJECTIVES

The purpose of the Goals and Objectives chapter of this Comprehensive Plan is to establish generalized statements of intent which reflect the wishes of both the residents and officials of the Township. These statements are intended to provide guidance in the decision making and policy setting process of land use planning. As used in this document, a goal is a generalized topic that encompasses an area of concern to the Township. Objectives are measurable methods and procedures to accomplish the goal.

Goals and objectives are intended to satisfy the future growth needs of the community. The goals need to address the full range of planning issues now facing East Coventry Township and, as they are herein established, are taken from the analysis of existing conditions and growth prospects in the Township, and the identification of growth management issues which are outlined in Chapter 7, Land Use Plan. The goals and objectives that follow are categorized according to the major planning concerns and issues that were identified in previous Township planning documents, as well as through more recent expression by Township officials.

The Comprehensive Planning process is dynamic and reflects the continual change in community needs and methods for accomplishing them. As the planning process evolves, the goals and objectives should be adjusted to accommodate the current situation. The evolving process should become an integral part of the Township management of its future.

- Goal 1. <u>Natural Resources.</u> Delineation and protection of environmentally sensitive areas.
 - Objective 1.1. Identify and delineate natural resources and develop regulatory measures to sustain them. Include floodplains, wetlands, hydric soils, stream headwaters and buffers, slopes, ridgelines, woodlands, and critical wildlife habitat.
 - Objective 1.2. Regulate land development so as to protect and enhance sensitive natural areas, such as those in Objective 1.1.
 - Objective 1.3. Regulate land uses in floodplains to protect water quality and stream bank stability.

- Objective 1.4. Regulate land uses on slopes greater than 15%, so as to minimize erosion, instability and subsidence.
- Objective 1.5. Require protection for existing significant trees and measures for replacement.
- Goal 2. <u>Historic Resources</u>. Identify historic resources and their surroundings in the Township and develop protective measures.
 - Objective 2.1. Recognize the value of historic structures to the character of the Township landscape by inventorying significant structures, including residential, commercial, industrial, agricultural buildings, bridges, walls and other engineered structures.
 - Objective 2.2. Develop protective measures to encourage preservation of significant historic structures.
 - Objective 2.3. Provide for adaptive reuses for historic structures compatible with the structure and the community.
 - Objective 2.4. Create inducements to encourage preservation, such as site plan modifications and clustering.
- Goal 3. Open Space Preservation. Recognize the rural landscape of the Township by preserving areas significant for physical, cultural, recreational, and scenic qualities.
 - Objective 3.1. Identify elements of the rural landscape that are significant.
 - Objective 3.2. Develop plans and policies that preserve features while permitting sensitive development.
 - Objective 3.3. Develop methods to protect and perpetuate especially critical areas, such as transfer of development rights and conservation easements.
 - Objective 3.4. Identify scenic corridors and view-sheds and develop

1 2 - 3 3 2

methods to protect same.

- Goal 4. <u>Agricultural Preservation.</u> Preserve agriculture as a valuable land use and industry which contributes to the character of the Township.
 - Objective. 4.1. Identify classes and quality of agricultural soils and delineate agricultural zones.
 - Objective 4.2. Include agricultural preservation issues in the Township growth management strategies.
 - Objective 4.3. Utilize available county, state and federal programs to preserve agricultural lands.
 - Objective 4.4. Educate Township residents on the role and needs of agriculture and its importance to the Township.
- Goal 5. <u>Land Use and Growth Management.</u> Provide for Township growth consistent with protecting the health, safety, and welfare of current and future residents, while preserving significant community attributes.
 - Objective 5.1 Strengthen concentrations of commercial activity, employment opportunities, institutions, and residential variety to increase diversity, provide a sense of community and provide mixed use centers.
 - Objective 5.2 Concentrate new residential development in suburban landscapes and locate employment centers to have adequate infrastructure and accessibility.
 - Objective 5.3 Support agricultural land uses while enhancing villages to accommodate future development.
 - Objective 5.4 Restrict development in areas with significant natural features.
 - Objective 5.5 Maintain an inventory of all Township land, including land cover, land use, natural resources, community facilities, historic resources, and scenic areas.

- Objective 5.6 Develop future growth strategies that recognize community values, infrastructure, services, and resources in order to guide growth while preserving significant Township qualities.
- Objective 5.7 Concentrate growth near existing or planned patterns of development and infrastructure.
- Objective 5.8 Coordinate land use planning with adjacent townships and the County by participation in regional organizations. and consider impact on adjacent land use.
- Objective 5.9 Develop methods to include home occupations as an important element of future Township growth.
- Goal 6. <u>Transportation.</u> Provide for the transportation needs of residents and businesses with efficient and well maintained facilities.
 - Objective 6.1 Evaluate transportation network for location, condition and capacity, and maintain an inventory of this information.
 - Objective 6..2 Coordinate with PennDOT about local and regional highway improvements that will affect the Township.
 - Objective 6.3 Encourage the use of non-motorized transportation modes, such as walking and bicycling.
 - Objective 6.4 Encourage the development and use of mass transit systems where appropriate, both locally and regionally.
 - Objective 6.5 Evaluate Subdivision and Land Development Regulations for compatibility of proposed development with road capacity standards.
 - Objective 6.6 Develop a plan to project transportation improvement projects into the future, with emphasis on reinforcing a hierarchy of transportation types.

- Goal 7. <u>Community Facilities and Services.</u> Provide for Township public facilities and services for current and future development consistent with projected growth.
 - Objective 7.1. Develop an integrated facilities and services plan providing opportunity for future growth and related facility needs, including utilities, human services, public health, and economic development, consistent with anticipated growth.
 - Objective 7.2. Identify areas available for future community facility needs and develop timetables and strategies for acquisition.
 - Objective 7.3. Identify, evaluate and monitor regional services for residents and businesses.
 - Objective 7.4. Develop a long-term solid waste management plan which includes a recycling component.
 - Objective 7.5. Coordinate with state and regional emergency service providers, including police, fire, emergency health and disaster relief, for service to residents of the Township.
- Goal 8. <u>Housing.</u> Provide for the preservation and maintenance of the existing housing stock and future development for Township growth.
 - Objective 8.1. Adopt and maintain the Statewide building code and provide consistent enforcement.
 - Objective 8.2. Require a high level of structural and property maintenance for aesthetic and public safety reasons.
- Goal 9. <u>Financial Management.</u> Insure the current and continuing financial integrity of the Township, utilizing accepted techniques for operational budgets and capital improvement programming to support its services and facilities.

- Objective 9.1. Prepare annually a Capital Improvement Program to fund facilities, equipment, maintenance, and programs.
- Objective 9.2. Encourage fiscally responsible land development in order to strengthen the tax base and provide diversified employment opportunities.
- Objective 9.3. Maintain a reserve fund for maintenance and expansion of community facilities and public works projects, such as road maintenance, sidewalk construction, street lighting and park maintenance.
- Goal 10. <u>Planning and Coordination.</u> Encourage intergovernmental coordination and public-private cooperation in Township management.
 - Objective 10.1. Continue and expand involvement with regional organizations on issues pertinent to the Township.
 - Objective 10.2. Monitor development trends regionally relative to impacts on the Township.
 - Objective.10.3. Provide adequate and appropriate areas for future growth utilizing sound land use planning principles.

 Concentrated growth areas are encouraged to maintain rural landscape qualities.
- Summary. The intention of the preceding Goals and Objectives has been the establishment of issues of importance to the Township. These issues, as expressed through measurable objectives, are more fully developed in the following chapters, where in greater detail the goals are applied to existing conditions, resulting in a plan of implementation. The Goals and Objectives should play a prominent role in any decision making process relating to maintaining the existing qualities of East Coventry Township and guiding its future growth.

CHAPTER 6 POPULATION AND HOUSING

Among the most important sources of information that can be used in the planning of an area are past demographic statistics and future forecasts based upon those statistics. The US Census provides an inventory of the essential demographic data each decade. The analysis of this data is a major component of any comprehensive planning process. Trends in population statistics help to project the demographic parameters of future residents of the Township. These projections help the community to decide the allocation of future land uses. They are also necessary to prepare municipal budgets and plan for facilities to address future community needs.

This Comprehensive Plan Update, the Township Zoning Ordinance, the Subdivision and Land Development Ordinance, and any other ordinances for regulating East Coventry should focus on current and future residents' needs. In that regard, it is necessary to assemble and analyze census data from the past in order to project future trends. This chapter will focus on population and housing trends, to forecast what the impacts of growth will be on the landscape of the Township.

Methodology.

The 1960, 1970, 1980, 1990 and 2000 Census data were the sources for much of the data presented in this chapter. Additional pertinent data are available in compiled form from the Chester County Planning Commission, and the Delaware Valley Regional Planning Commission. Field surveys and building permit data helped to update the 2000 Census. At the time of this writing, the 2000 Census figures have been released. Municipal statistics for population totals, ethnic distribution and some age distributions are available. Chester County has recently released population projections for all of its municipalities. The East Coventry Township projections have been challenged by the Township and will be discussed later in this Chapter.

Regional Population Growth

East Coventry Township, by virtue of its location at the northern edge of Chester County and the proximity of bridges over the Schuylkill River, is subject to influences from nearby municipalities both in Chester County and Montgomery County. Table 6.1, Regional Population Comparison, illustrates the most recent growth data, 1990 to 2000, for the surrounding area. Of the six (6) townships and one (1) borough which either abut East Coventry or are across the Schuylkill River, Limerick Township in Montgomery County had an extreme increase in population, more than doubling in the decade. Several

Table 6.1

East Coventry Township and Surrounding Municipalities Regional Population Comparison, 1990 - 2000

M in in the state of the s	1990	2000	Change	% Change
Municipanty				
Two Two	4450	4566	116	2.6%
North Coventry Two	7506	7381	-125	-1.7%
South Coventry Two	1682	1895	213	12.7%
Fast Vincent Two	4161	5493	1332	32.0%
l imerick Two	6691	13,534		102.3%
I ower Pottsgrove Two	8808	11,213	2405	27.3%
Pottstown Borough	21,396	21,859	28	0.1%
	376 376	432 E04	57 105	15.2%
Chester County Montgomery County	678,111	750,097	71,986	10.6%

Source: Chester County Planning Commission and Montgomery County Planning Commission

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townships had rates around 30%, which is also considerable. However, East Coventry, along with North Coventry and Pottstown experienced almost static growth. This disparity of growth within a region has the potential for causing land use and transportation instability. Very few systems are isolated to an individual municipality, but transcend boundaries. Areas experiencing rapid growth can stress environmental sensitivities and road networks.

Population Characteristics

Historically, East Coventry Township has grown in population at a substantial rate between 1960 and 2000. This trend was also evident for most municipalities within Chester County. Table 6.2 represents a summary of the historical population of the Township from 1960 to 2000.

Table 6.2
Historical Population

Year	Population	Number Change	Percent Change
1960	2183	n/a	n/a
1970	3284	1101	50.4%
1980	4085	801	24.4%
1990	4450	365	8.9%
2000	4566	116	2.6%

East Coventry Township has had substantial growth between the years 1960 and 2000. The actual numbers and percentages could be attributed to the availability of reasonably priced land, economic growth, regional proximity, improvements to the regional transportation network, and the development pressures associated with suburban sprawl. The above figures exceed those of Chester County as a whole between 1960 and 1980, however the County growth rate was more than double that of the Township for the period 1980 to 1990. The percentage of growth between 1990 and 2000 represents not only a continuation of the downward trend in growth rates, but also a rate so low as to be close to no growth in the decade, as compared to a growth rate of 15.2% for Chester County in the last decade. The difference between the growth rate in 1970 and the most recent figure for 2000 is extreme and represents a sharp curtailment of development in the Township. See Table 6.2.

Age Distribution – The significance of the manner in which the total population is distributed by age ranges is important to a municipality as a way to identify municipal services relative to various age groups. A prime example is the use

of statistics for youth populations to forecast the need for additional school space or impending surplus space. High percentages of elderly age groups can be indicative of the need for senior service centers and housing for the elderly. Table 6.3 presents the most current data for various age ranges for East Coventry Township and Chester County.

Table 6.3

Population by Age

Age Range	East Coven	try Township	Chester	County
	Number	Percent	<u>Number</u>	<u>Percent</u>
Under 5 5 to 9 10 to 14 15 to 19 20 to 24 25 to 34 35 to 44 45 to 54 55 to 59 60 to 64	234 262 370 278 163 368 812 714 288 246	5.1% 5.7% 8.1% 6.1% 3.6% 8.1% 17.8% 15.6% 6.3% 5.4%	29,330 32,556 33,105 29,600 23,410 54,720 76,903 64,406 22,583 16,211	6.8% 7.5% 7.6% 6.8% 5.4% 12.6% 17.7% 14.9% 5.2% 3.7% 6.3%
65 to 74 75 to 84 85 and over	377 293 161	8.3% 6.4% 3.5%	27,128 17,782 5,767	4.1% 1.3%
<u>Total</u>	4566	100.0%	433,501	99.9%

Source: Census 2000, Chester County Planning Commission

Of interest from the above statistics is the comparison between the Township and the County as to various age range percentages. The percentage of children under 9 years of age is somewhat lower in the Township than the County and suggests that the need for schools is lower than in the overall County. Young adults in the 25 to 34 year range are a lower proportion of the Township than the County and may be reflective of young wage earner's inability to afford housing or locate jobs in the area. The 85 years and older range, while not a significantly large number, is about a three times larger percentage in the Township than the County. This age range and all those after age 44 begin to exceed the County percentages, which might suggest to the Township that it is retaining its elderly residents and should be providing

services accordingly. Most of this disparity can be explained by the presence of Manatawny Manor, an elderly housing facility in the Township. A portion of its 219 residents are undoubtedly in the upper age ranges and tend to skew the numerical comparison. In a broader sense, the small percentage of the County population made up by East Coventry Township (about 1.1%) leads to a need to use the data for generalized purposes only. Most of the elderly population may be supported by the facility in which it resides to a great degree, but the Township should continue to address the needs of those other elderly residents living elsewhere.

Gender Distribution – The distribution of the population by sex is generally consistent throughout the County, with slight variations in several municipalities. Table 6.4 illustrates the comparison between East Coventry Township and Chester County.

Table 6.4

	Population [Distribution	n by Sex	Percent	Percent
	Total Population	<u>Male</u>	<u>Female</u>	<u>Male</u>	Female
East Coventry Twp.	4566	2176	2390	47 .7%	52.3%
Chester County	433,501	212,739	220,762	49.1%	50.9%

Source: Census 2000, Chester County Planning Commission

Table 6.4 points out that the Township and County are quite similar in their distribution by sex. There are slightly more females than males in most population groups, including nationwide. The range of extremes within the County is fairly narrow, with several exceptions. Among the townships, Pocopson Township has the greatest proportion of males at 55.6% and East Whiteland Township has the greatest proportion of females at 54.3%. There are other areas of the County that have no political boundaries and are deemed Census Designated Places (CDP) by the U.S. Census Bureau. Among those, Toughkenamon CDP has the greatest proportion of males at 59.5% and Chesterbrook has the greatest proportion of females at 55.4%.

Racial Distribution

The 2000 Census, among the many population attributes collected, includes the distribution of races within the population. Table 6.5 illustrates the racial characteristics of both East Coventry Township and Chester County:

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Table 6.5

Racial Distribution

Race	East Coventry Township	Chester County
Hispanic or Latino	32	16,126
White	4470	377,925
African American	39	26,395
American Indian/Alaska Native	3	479
Asian	10	8400
Naïve Hawaiian/Pacific Islander	0	108
Other Races	4	448
Two or More	8	3620
Total	4566	433,501

Source: Chester County Planning Commission

Population Projections.

The Chester County Planning Commission has developed population projections for all municipalities located in the County for the years 2005, 2010, 2015, 2020 and 2025. The projections have been derived from cohort-component method. They have been based upon the Census data through the 2000 Census. Table 6.6 presents the projections for ten year increments within that period, not only for the Township, but also for the surrounding municipalities and the County.

Table 6.6

CCPC Population Projections

East Coventry Township and Surrounding Townships

<u>Municipality</u>	Census 1990	Census 2000	Projectio 2010	n Projection 2020
East Coventry	4450	4566	5080	5270
East Vincent	4161	5493	6430	6770
North Coventry	7506	7381	8240	8640
South Coventry	1682	1895	2140	2380
Chester County total	376,396	433,501	483,500	528,000

Source: Chester County Municipal Projections and DVRPC

According to the County projections, the population of East Coventry Township is expected to grow by 704 persons before the year 2020, an increase of 15%, whereas the County for the same 2000-2020 period is expected to gain 94,499 people, an increase of 22%. It is worth noting that the Township projection for 2000 (based on 1990 data) was greater than realized by census, as were each of the five year increments. In fact, the current 2020 projection for the Township is 760 less than the 2020 projection based on 1990 Census data. As mentioned earlier, the Township officials are not in agreement with the County and DVRPC projections, as will be explained within the context of current subdivision activity later in this Chapter.

Another means of evaluating population projections is through a Straight Line Trend Projection of past trends. Between the years 1960 and 2000, the population of the Township grew by 2383 persons, or by 109%. By proportioning that rate of growth for each of the next two decades the projected yields are 6000 persons by 2010 and 7364 by 2020. This procedure averages the growth rate for past decades and projects it forward, assuming that no other factors affect it. In reality, the trend in the growth rates over the subject period has been steadily declining from a high of 50.4% between 1960 and 1970 to 2.6% in the decade between 1990 and 2000. For the straight line technique to be accurate, a reversal of that trend would have to occur in the future.

A third form of population projection is the Adjusted Trends Projection, in which factors such as current subdivision activity is applied to the figures. Over the 40 year period between 1960 and 2000, East Coventry Township grew at an annual rate of approximately 2.73%, although most of that growth occurred between 1960 and 1980. Chester County as a whole has witnessed increasing rates of growth, as have a number communities surrounding East Coventry Township. For example, East Pikeland Township and East Vincent Township have both seen annual growth rates in the range of approximately 3%. Given East Coventry's regional location and the increasing number of large residential development proposals, it is very likely that the Township could witness annual growth rates in the near term in the range of 4% to 4.5%.

Table 6.7 which follows illustrates and compares the three population projection methods discussed above:

	<u>Table 6.7</u>		
Projection Technique	Census 2000	Projection 2010	Projection 2020
Chester Co. Forecast Trend Line Adjusted Trend	4566 4566 4566	5080 6000 6700	5270 7364 8700

Based upon these varying forecasts, the total population of East Coventry Township could range from 5270 persons to approximately 8700 persons in the year 2020. These are obviously widely divergent figures, which are reflective of the difficulty in forecasting factors which might affect growth in the future. This Comprehensive Plan will utilize the Trend Line Projection, which is a population of 7364 in the year 2020.

To expand the figure discrepancy further, the Township Planning Commission has evaluated the current volume of land development applications, the acreage of land available for future development and zoning yields, concluding that the growth will be higher than any of the previously noted projections. Assumptions were made about the occupancy timing of the recorded lots and the amount of land suitable for development. Using this methodology, as many as 9267 people will inhabit the Township in 2020. Economic trends will play a role in the rate at which the lots are developed.

Housing

Information concerning housing characteristics is essential for the comprehensive planning process of any community. The types of housing available or planned determines the social and economic composition of a community. This composition will determine the demand for community services within East Coventry. The following section will also analyze the geographic distribution of housing types which is essential for assessing potential environmental and economic impact within the planning area.

With the anticipated growth of 2800 persons between the years 2000 and 2020, a calculation of the demand for housing in East Coventry Township can be made. In calculating the demand, an average household size of 2.71 persons will be used, based on the number of dwelling units and population in 2000. As a comparison, the same calculation done for the County yields 2.65 persons per household.

Housing Composition

An understanding of the composition of the Township's housing stock is important in relating the current and future population to the different types of housing available. At this writing, no breakdown is available as to the numbers of different housing types in the Township, however, the 2000 Census reports that there were 1684 total dwelling units, compared to 163,773 units in all of Chester County. At the same time there were 219 individuals residing in institutions. New dwelling units that come on line in the municipalities are reported by the County periodically. In the past, those numbers have been based upon the issuance of building permits. Starting in calendar year 2000 the County has changed its policy and initiated record keeping based on tax assessment records, in the belief that they more accurately reflect the true number of new dwelling units. Building permits are often drawn in a different year than occupancy, or are not actually used. The report for the year 2000 indicates that in East Coventry Township, eight (8) new units of the general category were occupied, and that there were no new mobile homes or apartments occupied.

The "Profile of Selected Housing Characteristics: 2000", issued by Chester County and derived from Census 2000 data, identifies the composition of the housing base in East Coventry Township, the total of which is reported as 1684 dwelling units. The following Table 6.8 provides the make up of that total by unit type:

Table 6.8
Housing Composition

Units in Structure	<u>Number</u>	<u>Percent</u>
1 unit, detached 1 unit, attached 2 units 3 or 4 units 5 to 9 units 10 to 19 units 20 or more units Mobile home	1427 21 21 14 14 45 0 142	84.7 1.2 1.2 0.8 0.8 2.7 0 8.4
Total	1684	100.0

Source: Chester County Planning Commission

The above table makes it clear that currently the Township is predominantly made up of single family detached housing. This is consistent with the rural character present in much of the Township, although there are small examples of other forms of housing. This pattern will change as new plans are approved for development, some with significant numbers of multi-family units. The Zoning Ordinance provides for a range of housing types and it is the intent of this Plan that housing other than large lot single family units be developed as well. The greater use of cluster housing and attached units has the potential to preserve significant amounts of open space.

Residential Building Permits

The recent past history of issuance of building permits is indicative of the disparity of development activity in the immediate vicinity of East Coventry Township. Table 6.9 provides the numbers of building permits issued by the Township in the past five years. Ten (10) and nine (9) permits were issued by the Township in 1998 and 1999, respectively, numbers which stand in stark contrast to almost any other municipality in the area, with the notable exception of South Coventry Township. See Table 6.10 for a comparison of regional building permit activity.

Locally, the Township has issued building permits in accordance with the following table, covering the past five years:

Table 6.9

Township Building Permits

1998	10
1999	9
2000	49
2001	. 27
2002	36

Source: East Coventry Township records

The noticeable increase in permits after 1999 is reflective of new developments being initiated in the Township. This trend is expected to continue, given the volume of new development proposals being reviewed at the time of this writing.

For comparison purposes, Montgomery County municipalities have been included due to their close proximity and accessibility. Limerick Township,

Table 6.10

East Coventry Township and Surrounding Municipalities Residential Building Permits, 1998 and 1999

		1998	86			1999	<u> </u>	
Fact Coventry Twn	Total	1 Unit	2 Units	3+ Units	Total	1 Unit	2 Units	3+ Units
Tast Covening Two					,	-	•	
Fast Covering 1 wp.	<u></u>	6	0	0	O)	<u>o</u>	0	0
North Coventry Twp.	7	7	0	0	34	8	0	0
South Coventry Twp.	9	ဖ	0	o	80	80	0	0
East Vincent Twp.	9	91	0	0	26	97	0	0
Limerick Twp	516	224	22	270	727	218	0	509
Lower Pottsgrove Twp.	78	89	0	10	99	4	0	12
Pottstown Borough	45	4	0	4	28	9	0	52
	3	100	9	·	000	000		7.70
Chester County	3,489	COR'Z	0	2/0	3,308	3,090	4	214
Montgomery County	3,800	3,179	26	595	3,675	2,922	9	743

Source: DVRPC Data Bulletin No. 65 and Township records

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directly across the Schuylkill River, is by far the most active of the municipalities, in terms of permits issued. In 1998 and 1999, a total of 1243 permits were issued, of which 779 were for units with three (3) or more dwelling units (multi-family housing). By comparison, during the same period, no permits were issued in any of the four Chester County townships for multi-family housing. The development pressures that are indicative of that kind of growth have not occurred in East Coventry Township. By the same token, pressures on the local infrastructure and facilities have also been absent.

Housing Occupancy and Tenure

The two terms which are the title of this section refer to the status of dwellings as either occupied or vacant (Occupancy) and the nature of the occupancy as either by owner or renter (Tenure). For the purposes of this Plan the statistics for both have been combined into Table 6.11. Data is presented for East Coventry Township and the surrounding townships in Chester County. No corresponding data for the nearby municipalities in Montgomery County was available at the time of this writing.

Comparing the three surrounding municipalities and Chester County with East Coventry Township yields the fact that East Coventry has the highest proportion of owner occupied dwellings in the area and is substantially higher than the County average. This information corresponds to the lack of rental housing in the Township, either as single family or multi-family, as illustrated in Table 6.11, Housing Occupancy and Tenure Comparison, 2000. It is also worth noting that the number of vacant dwellings in the Township is relatively low and that 2.1% is the lowest of the area described.

Housing Projections

Using the figure of 2.71 persons per household in 2000 and the same figure for the future decades of 2010 and 2020, projections can be made regarding the number of dwelling units that will be required to accommodate the projected population within the Township. The following table presents that calculation for the decades 2000 to 2020.

Table 6.11

East Coventry Township and Surrounding Municipalities Housing Occupancy and Tenure Comparison, 2000

Municipality	Total Occupied Housing Units	Occupied Housing Units	Owner Occupied	Percent Owner Occ.	Renter Occupied	Percent Renter Avg. Household Owner Occ. Occupied Size Owner Occ.	Avg. Household Size Renter Occ.	Vacant Housing Units	Vacancy Rate	Vacant Seasonal
East Coventry Twp.	1684	1649	1450	86.1%	199	2.71	2.12	35	2.1%	9
North Coventry Twp.	3114	3012	2170	69.7%	842	2.70	1.81	102	3.3%	80
South Coventry Twp.	721	069	583	80.9%	107	2.81	2.81	સ	4.3%	က
East Vincent Twp.	1960	1888	1493	76.2%	395	2.90	2.18	72	3.7%	-
Chester County	163773	157905	120428	73.5%	37477	2.80	2.16	5868	3.6%	571

Source: Chester County Planning Commission, Census 2000

Table 6.12
Housing Projections
2000-2020

	2000	<u>2005</u>	<u>2010</u>	<u>2015</u>	<u>2020</u>
Population	4566	528 3	6000	6682	7364
Avg. Household Size	2.71	2.71	2.71	2.71	2.71
Housing Demand	1685	1949	2214	2466	2717
Deficit		264	265	252	251
Total Additional Housing Units			529	781	1032

Note: Population Forecasts Based on Average Annual Growth Rate of 3.1%

The above table projects the cumulative deficit of housing units for the planning period. The average household size is 2.71 persons per dwelling. The conclusion to be drawn from the table is that over the planning period, about 1032 additional dwelling units will be needed to satisfy the anticipated population growth for the same period, or approximately 52 units per year. The lots upon which the future dwellings would be built are composed of those already approved by the Township but as yet undeveloped, those that the Township is currently processing, or those that may become applications to subdivide in the future. Of the three possibilities, applications recently or currently before the Township for approval can be tabulated. The following Table 6.13 depicts those subdivisions and their proposed number of dwelling units, representing the development activity since 2000. Of the 1032 dwelling units needed for future population in the planning period, 969 have been recently reviewed, are currently being processed or have recently been approved. The remaining 63 units needed should be achieved on parcels within the sewer and water service area. See Chapter 7, Land Use Plan, for further discussion of this issue.

Table 6.13 Recent Residential Subdivision Activity

Orchard Ridge	274 dwelling units
Coventry Meadows	379
Creekview	76
Wood Crest Estates	22
Meadowbrooke Hunt	11
Blossom Meadows II	28
Barndt Property	6
Eckhart Subdivision	5
Deguiseppe Subdivision	8
Walnut Springs Farm	24
Bethel Church Rd. Subdiv.	17
Heather Glen	28
Snowden Village 2	20
Snowden Village 3	9
Snowden Village 4	9
Coventry Ridge	14
Coventry Mews	14
Coventry Greene	12
Blossom Meadows	13
Diodooiii modaa	

969 proposed dwelling units.

Summary

The discussion of population and housing will need to be augmented with additional year 2000 Census data as more becomes available. From the time of this writing, the three decades from 1990 and 2020 were considered, including the 2000 totals. The anticipated growth is 2798 people and 1032 dwelling units. Of equal concern to these growth projections is the land area which may be consumed by the growth in residential numbers over the planning period. The rural character of the Township is tied closely to both low population in generally low density development. As growth occurs in coming years, that same density will have the effect of diminishing the rural qualities. Techniques for ameliorating the effect will be discussed in future chapters of the Plan, but one should be aware when reading population and housing projections that the resulting development will need to be guided to areas where impact will be minimal. Locally, this may result in higher densities, in order to preserve the overall open space quality of the Township.

CHAPTER 7 LAND USE PLAN

Planning Requirements

The Pennsylvania Municipalities Planning Code (MPC) requires that a comprehensive plan provide a plan for land use. Section 301.2 of the MPC states that the plan for land use may include provisions for the amount, intensity, character, and timing of land uses, and for the preservation of prime agricultural lands, floodplains, and other special hazard areas and similar uses.

The comprehensive plan is expected to meet the housing needs of present and future residents. This can be accomplished by conserving presently sound housing, rehabilitating housing in declining neighborhoods and accommodating new housing of different types and densities.

The Municipalities Planning Code also requires that the municipal comprehensive plan be consistent with the County Comprehensive Plan.

"Landscapes", the Comprehensive Plan for Chester County

On July 12, 1996, the Chester County Commissioners adopted "Landscapes, Managing Change in Chester County, 1996 – 2020, Comprehensive Plan Policy Element". "Landscapes" analyzed development of the County over several decades.

In the last twenty-five years, more development has occurred in Chester County than in the previous three hundred years. As a result, more land has been consumed for each new house and each new job than in any other county in the Delaware Valley region. The type of development that has been occurring is known as "sprawl". Sprawl is the pattern of spreading low density residential, mostly automobile dependent, development, shopping centers, and office/industrial parks across the landscape. This form of development is considered to be consumptive of valuable and productive land, wasteful and short-sighted. In adopting "Landscapes", the County has selected a course of action to change that pattern of development. The issue of sprawl is a potential threat to the character of East Coventry Township today and its ability to retain that character into the future. The benefits to the local community in avoiding sprawl development can be summarized as follows:

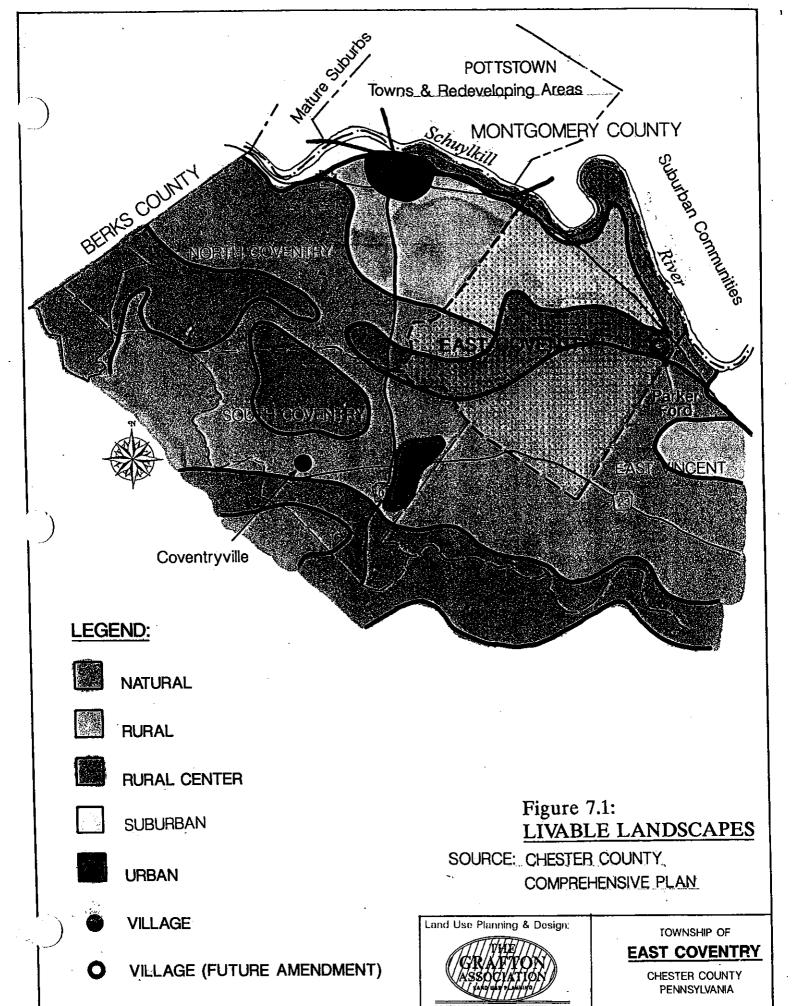
- Conservation of historic and natural resources
- Protection of open areas (woodlands and farms)
- Revitalization of communities

- Reduction of congestion on roadways
- Saved tax dollars and utility costs
- · Business and job retention

Chester County Livable Landscapes: 2020

The Chester County Comprehensive Plan Policy Element, adopted by the County in 1996, is entitled "Landscapes". This document advocates the creation of "Livable Landscapes" as an alternative to suburban sprawl. The concept is fundamental to the growth management strategies of the Chester County Comprehensive Plan. Four types of landscapes - Urban, Suburban, Natural and Rural - are identified in the Plan, as well as the creation of growth boundaries to protect and enhance the four landscapes. The urban and suburban landscapes are delineated as the areas best able to accommodate new growth and development because of available infrastructure. The rural and natural landscapes will require protective measures because of their value as open space, environmental, scenic and agricultural resources. The concept of "Livable Landscapes" also includes a recognition and delineation of development concentrations, such as centers, villages and developed corridors. Both centers and villages may exist in the rural and natural landscapes, serving local shopping and community needs, and can serve as the focus of future growth. Although the currently adopted County Comprehensive Plan Map has no villages located in East Coventry Township, a request has been made to the County Planning Commission that the village of Parker Ford be designated. This Plan supports that and has shown the village as a "future amendment" on the figure. Developed corridors, of more recent vintage, are identified generally as areas requiring special land use controls in order to improve their function and aesthetics. See Figure 7.1 for regional relationships. Included in this figure is the adjacent area of Montgomery County and its Comprehensive Plan designations for those nearby areas. Although the two counties have different nomenclature for the generalized areas, it can be seen that Pottstown and its immediate suburbs are within an area of influence for East Coventry Township, given the location of highway bridges over the Schuylkill River.

In "Landscapes", Chester County has delineated the distribution of landscape types and growth boundaries from a global perspective. Recognizing that each municipality may view its own particular planning needs from a perspective much closer to its own set of conditions, the Vision Partnership Program has been established to allow municipalities the option to modify, if demonstrated appropriate, the delineation of the landscape types and the growth boundaries. It is not the intent of this Comprehensive Plan to modify the growth boundaries of "Landscapes", since East Coventry Township is delineated as suburban to the north, rural to the south and Pigeon Creek being a natural band separating



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the other two. These landscape types are highly generalized. There may be local areas that do not meet the overall designation. In that sense, it can be said that the classifications of suburban and rural exemplify those areas of East Coventry Township currently and are consistent with the intended preservation of that character.

Existing Land Use

Mapping and analyzing the current land use patterns in a municipality is an early step in understanding the way the land has been used in the past and how future needs can be accommodated. See Figure 7.2 for a generalized existing land use map. In East Coventry Township an existing land use analysis was conducted in 1994 in preparation for the Comprehensive Plan Update of November of 1995. That analysis was performed by the author of the Plan, Motley Engineering Company, Inc., utilizing a windshield survey of the Township to confirm data mapped from aerial photographs and tax maps. That information has been updated to December of 2000 as part of the Act 209 Impact Fee Study, specifically the Land Use Assumptions Report, July 18, 2001, prepared by the author of this Comprehensive Plan. That update was accomplished by a summary of approved plans which had occurred in the interim. The same technique has been used to bring the information forward in time to the writing of this Plan.

The vast majority of parcels of land in the Township are residential, and, of those, most are single family residential. From an area perspective, agricultural uses are also prominent. Residential uses have been categorized into low and medium density land uses, based on actual density. Low density refers to single family detached development at a density of one (1) dwelling unit per acre or less. Medium density refers to single family detached development at a density of greater than one (1) dwelling unit per acre, including semi-detached units, two (2) family detached units, townhouse units, apartment units, and mobile homes.

The following table represents the distribution of land use types at the most recent time, that being the preparation of the Act 209 Study in 2001. These have been divided into the basic land use categories of residential, commercial, industrial, public, woodlands and agricultural/open space.

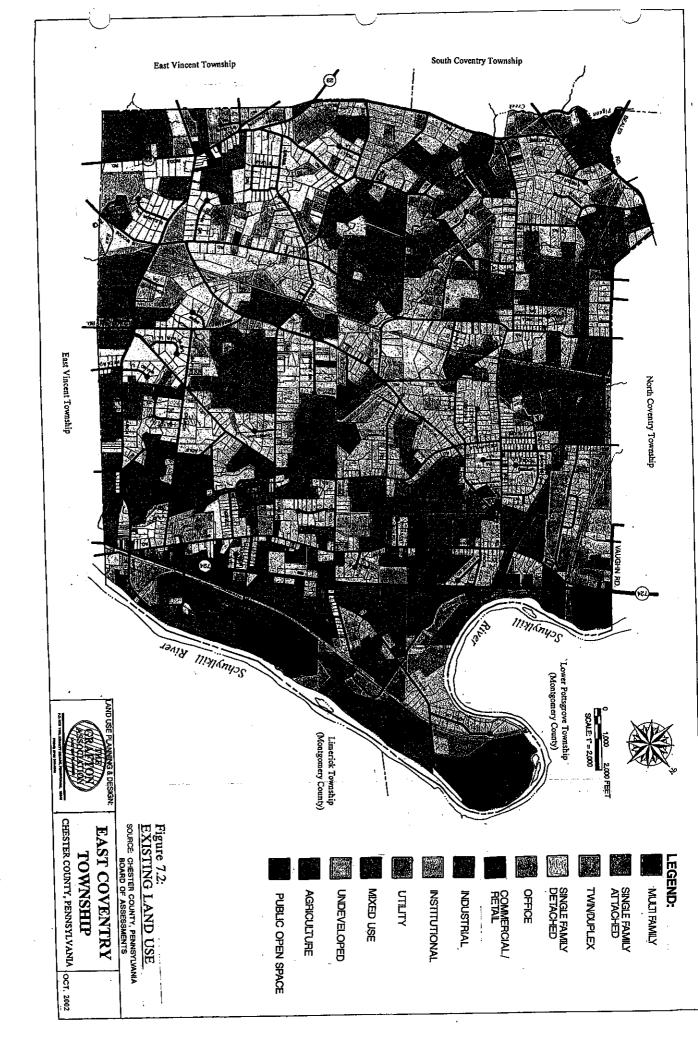


Table 7.1

East Coventry Township
Existing Land Use, December 2000

Land Use Category	Land Area (ac.)	Percentage
Residential	2086	29.63%
Low Density Medium Density	1386 700	19.69% 9.94%
Commercial	111	1.58%
Industrial	130	1.85%
Public/Quasi Public	420	5.97%
Woodlands	418	5.94%
Agriculture/Open Space	3875	55.04%
Total	7040	100.01%

Source: East Coventry Twp. Act 209 Land Use Assumptions Report, July, 2001

As can be seen from the above table, a significant land area of the Township is currently in an undeveloped state, namely public or quasi-public lands, woodlands, agriculture or open space. These uses (or non-uses) combine for a total of almost 67% or two thirds of the total acreage of the Township. This is a significant proportion of any municipality to be devoted to what is generally considered non-development. It is also indicative of the rural quality prevalent in much of the Township and one which is desirable to maintain.

In very general terms, the northern sector of the Township contains much of the newer subdivisions and therefore somewhat higher residential density than the southern sector. For purposes of this discussion, Pigeon Creek and Bickels Run can be seen as an east-west divider between the more developed northern sector and the more agricultural and open space oriented southern sector. This is, of course, a generalization, but the stream valleys do serve as a physical barrier topographically and visually, although there are numerous road crossings of both streams.

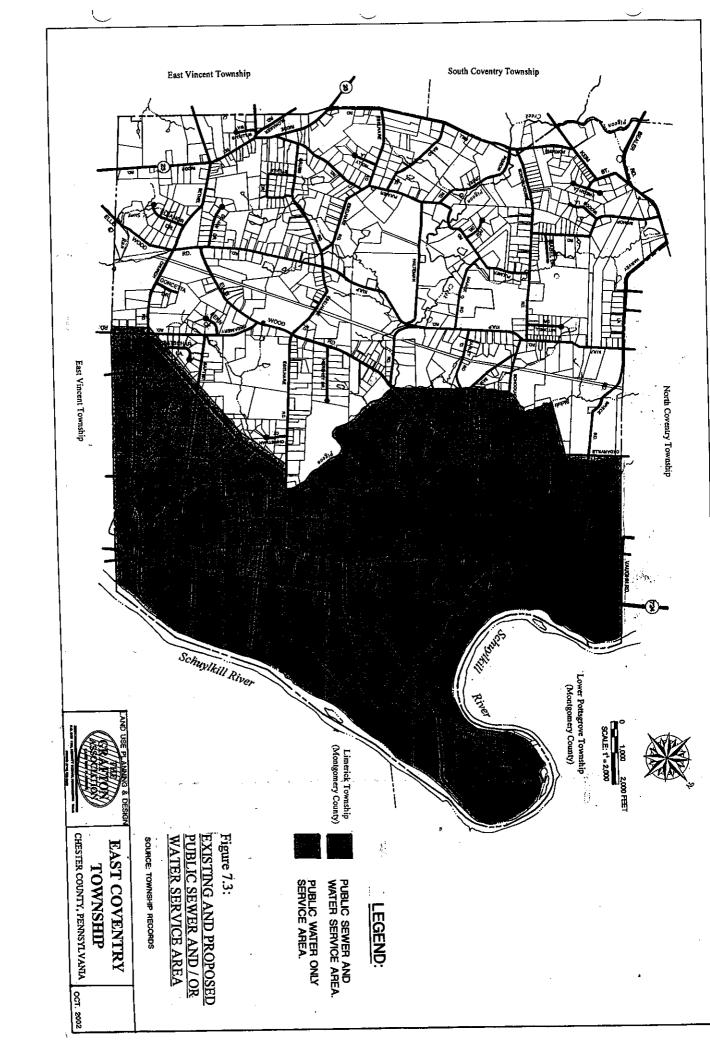
Future Land Use Issues

One of the perennial issues facing any municipality when it considers its future is the provision of public sewer and water service. Such infrastructure, when available to an area, brings with it the ability to increase densities beyond what would be attainable through on-site treatment systems and wells. The potential for greater density not only relates to residential dwellings which could now be developed on lots smaller than an acre, but also allows for consideration of multi-family housing, institutional uses, commercial and industrial sites that would not have to rely upon their own on-site systems. The availability of public sewer and water service has frequently been the catalyst for expanded growth and development.

East Coventry Township has historically relied on on-site systems to serve its rather rural development. However, there are public systems nearby that have the potential to provide service to the northern sector of the Township. Public wastewater treatment facilities are operated by the North Coventry Township Municipal Authority and extend to the border with East Coventry. The East Vincent Township Municipal Authority service area is located along the eastern Township border. A similar situation exists with public water providers. The Pottstown Borough Authority has a service area along the Schuylkill River in North Coventry Township extending to the border with East Coventry. The Pennsylvania American Water Company provides water service to areas of East Pikeland and East Vincent Townships, east of East Coventry. That company also provides water service to many houses in the Parker Ford area as remediation from the Superfund site at Wells Road and Route 724.

Presently the area of the Township within both public sewer and water service areas is a line that only approximates Pigeon Creek and Bickels Run. It is north of that line in the central Township and is south of that line in the east, bounded by Saylors Mill Road and East Vincent Township. This service area is the result of past decisions and a determination that those utilities not exceed these limits. It does not necessarily mean that utility lines exist in the ground. Rather, it is the developers obligation to provide connections to trunk lines which are usually placed by the utility company. In the eastern sector of the Township, south of Parker Ford, only water service is available. See Figure 7.3 for the alignment of the combined service areas. It is the Township's intent to channel growth to the service area, as it is located north of Pigeon Creek and Bickels Run.

The potential for expansion of service areas into East Coventry Township is subject to policy decisions of the Board of Supervisors. It is the position of this Comprehensive Plan that the majority of future growth projections should be accommodated in the northern area of the Township, north of Pigeon Creek



and Bickels Run. There are already numerous subdivisions in that area on lots large enough to support on-site wastewater treatment and wells. Infill development sites remain and it is suggested that future development be encouraged to utilize smaller lot cluster designs that would be more compact than current development, thus allowing for greater open space preservation. Connections to the public systems should also be encouraged where feasible, for the benefit of not having on-site or community system deterioration.

Land Use Plan

It was mentioned earlier that Pigeon Creek and Bickels Run are a natural division between the more developed northern sector and the less developed agricultural southern sector. One of the key elements of the southern sector that creates its rural character is the presence of open space. Many such tracts exist in the form of large farm ownerships, woodlots, or otherwise undeveloped lands. Portions of Pigeon Creek and its tributaries form the nucleus of a network of these lands. Efforts should be made to develop programs and procedures that would allow for the retention of these open spaces. Some available techniques are the expansion of farmland security areas, the transfer of development rights, conservation easements, deed restrictions, and fee simple purchase by public entities. On a parcel specific basis, lot owners should be required to maintain or enhance woodlots. Whenever a parcel is to be developed adjacent to the Pigeon Creek, the developer should be required to provide a trail that might connect to a larger system of trails.

This Comprehensive Plan proposes that the vast majority of new development in the Township occur north of the Pigeon Creek and Bickels Run on parcels located so as to be able to take advantage of the presence or extension of public sewer and water systems. New developments should be designed using cluster techniques that will maximize the efficiency of the infrastructure and create significant amounts of open space. Efforts should be made by developers and Township officials to coordinate open spaces into networks that connect not only various residential developments, but also local services, institutions and recreational areas.

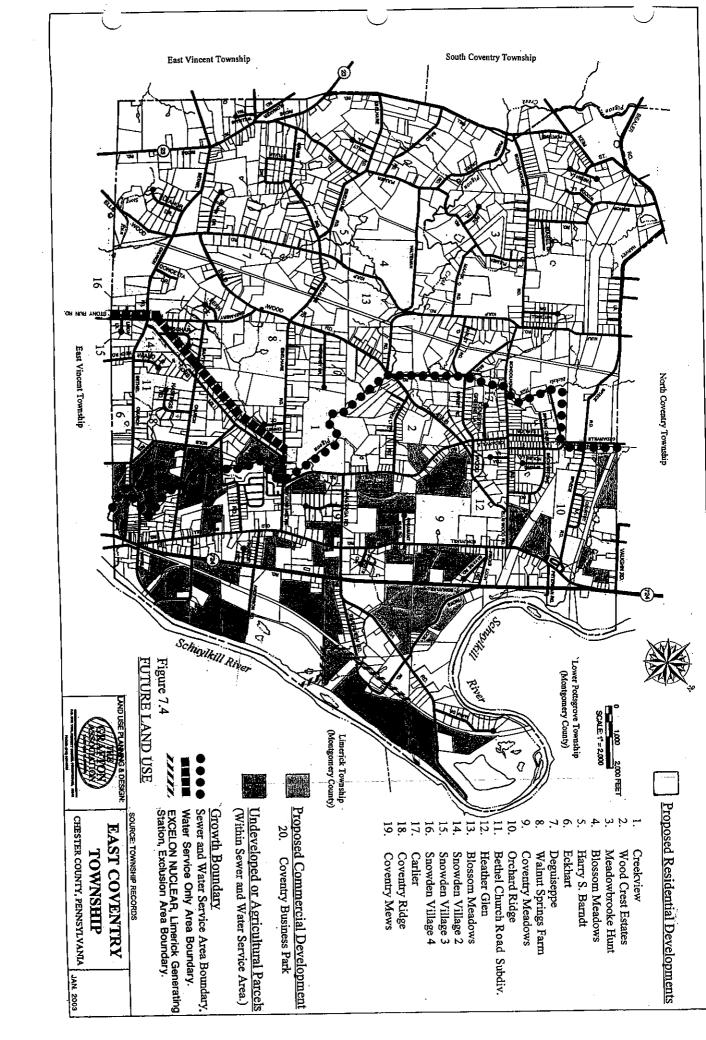
East Coventry Township is currently reviewing, or has recently reviewed, proposed land development plans for 19 sites, of which 18 are residential. These plans represent potential development applications received since 2000. The projects are located both within the sewer and water service areas and outside. As noted in Chapter 6, those plans could potentially yield 969 dwelling units and a population increase of 2626 individuals. If those individuals were added to the year 2000 population of 4566, there would be 7192 people in the Township, a figure close to the projection of 7364 for the year 2020. Many

factors may affect the rate at which the proposed units will be occupied. Recorded, but undeveloped, lots may remain that way indefinitely, subject to economic and other factors. But, assuming that they were all occupied during the planning period, only 63 additional dwelling units would be necessary to accommodate the projected population for the year 2020, a number significantly greater than the County projection. This is a relatively small number of additional lots compared to those currently or recently reviewed.

Of the 969 proposed dwelling units discussed above, 879 of them are within the sewer and water service area or sufficiently close for connection, and 90 are not. This is a realistic distribution, given the intent of this Plan and the Township to guide growth to those areas that have services. Within the service area, there are parcels of undeveloped or agricultural land that could accommodate the 63 needed dwelling units. For instance, there are numerous parcels of land in the northwest sector near the proposed developments of Coventry Meadows and Orchard Ridge (both zoned R-3) that have more than sufficient capacity for future needs. This area just noted is in close proximity to Pottstown and would be consistent with the denser urban pattern of land uses found there and its environs in North Coventry Township. There are other parcels as well, within the eastern sector of the Route 724 corridor, that offer additional R-3 zoned development opportunities. Figure 7.4 shows the proposed developments under recent review, as well as those parcels which have the potential to absorb future growth. Those parcels identified as "Undeveloped or Agricultural Parcels" and shown in green represent land that is potentially available for development growth within the sewer and water service areas, be it residential or non-residential. The various parcels are not necessarily zoned appropriately for that growth. The significance of the figure is that large areas exist in an undeveloped state that could absorb the very small amount of growth that is not accounted for in the plans currently in process and shown in yellow on the exhibit.

Nonresidential growth is also part of the pattern in East Coventry Township. The Coventry Business Park on Route 724, a proposed development plan currently under review by the Township, is a large tract zoned commercial and having the capacity to accommodate a significant portion of the Township's employment expansion during the planning period. This site is 99.9 acres in size and the proposal calls for 27 lots for commercial and limited industrial uses. There are also industrially zoned parcels between the Schuylkill River and Route 724 available for industrial expansion. Each of these areas are within the sewer and water service area.

The Zoning Map for East Coventry Township (see Figure 8.1) has classified those areas without sewer and water service as FR (Farm Residential) and R-1



(Residential) almost exclusively. A small district of NC (Neighborhood Commercial) is found at Route 23 and Bethel Church Road. The FR and R-1 districts have 2 acre and 1½ acre minimum lot sizes, respectively. If this southern area of the Township is to be preserved in an agrarian and open space character, with only a very low density residential pattern, consideration ought to be given to the creation of zoning regulations encouraging the use of cluster housing at a lower gross density than currently permitted. In addition, techniques such as transfer of development rights should be employed. Further discussion of this topic appears later in this chapter.

Resource Protection

Of the many resources found in East Coventry Township, the rural and agrarian character has to be the most obvious. Of course, this character is made up of many other resources, namely biotic, historic, scenic, topographic, and soils. Each of these elements in its own way contributes to the overall character that has become the image of East Coventry Township. The protection and retention of these resources is essential to the perpetuation of that image. See Chapter 9, Natural Resources and Open Space Plans, for a more thorough discussion of this topic.

There are enumerated goals and objectives found in Chapter 5 that address the need to preserve these resources. Chapter 13, Implementation, contains specific recommendations related to each objective. Collectively, these measures form a Resource Protection Plan, located in Chapter 9. Generally, the emphasis is on identification and documentation in order to understand the nature and extent of each resource and how one relates to the other. A case in point is the relationship of soils to topography and the need to retain agricultural soils and prevent their erosion into drainage courses. It was the presence of high quality agricultural soils that brought farming to the Township in its early history. The presence of many historic structures is also a product of the early settlement of the Township by farmers seeking productive soils.

Conflict arises when future growth within the Township is juxtaposed with the need to preserve resources. Not all resources can be preserved if the Township is to accommodate reasonable growth. It is imperative that resources not only be inventoried, but also prioritized as to value. The desired growth management practices within the Township should direct future development to areas that are of lower priority from a resource point of view and also to areas that have a higher probability of having necessary infrastructure. This takes the form of suitable road locations and capacity, public sewer and water systems, and compatibility with land use patterns and plans in adjacent municipalities. Those areas not suitable for future growth, meaning residential and its



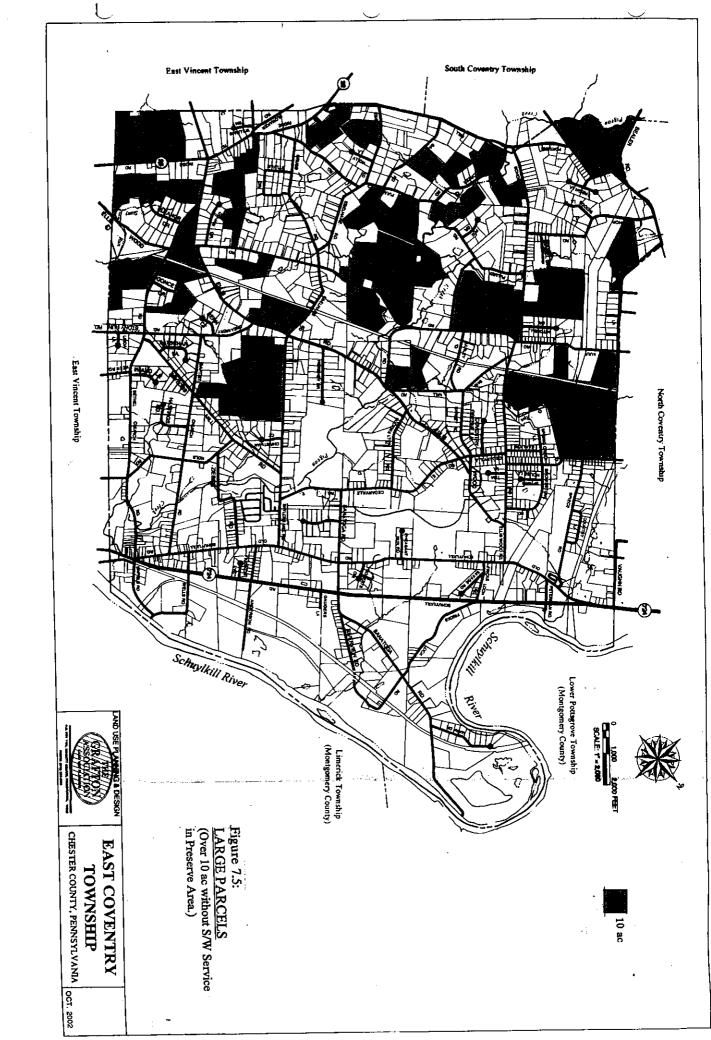
accompanying uses, should be portions of the Township that have the most value as farmland, areas with high scenic and recreation value, and areas that are most sensitive environmentally. Floodplains, wetlands and steep slope areas need to be protected and retained, for it is the loss of such areas that potentially will cause the deterioration of the Township's natural character and image.

Agricultural Preservation Plan

The need to preserve agriculture as a land use in East Coventry Township was discussed as an element of the Resource Protection Plan above. It is, however, significant enough to warrant additional emphasis in this Comprehensive Plan and is, in fact, a requirement of the Municipalities Planning Code of the State and the County's Comprehensive Plan. It should not be necessary to again state the value of agriculture to the character of the Township. Techniques to preserve it are another matter and deserving of examination. Figure 7.5 illustrates the distribution of the larger parcels, those approximately 10 acres and larger, within that portion of the Township not served by public sewer and water. This area has been called a Preserve Area to distinguish it from the area with public utilities, the focus of future growth.

Historically, farms have occupied most of the suitable areas of the Township. those that have the suitable soils and topography necessary to provide an economic return to the farmer. The agricultural land use pattern has been well established in history. Until the 20th century, most of the land use pattern could be attributed to agriculture and its associated uses. More recently, however, the pattern of development in the Township has been eroded by an influx of other uses. The development of a transportation system regionally has made areas like East Coventry desirable for residential purposes disassociated with the agricultural uses. Residential growth brings with it the need for services like commercial, recreational, and institutional. Employment centers have even found it feasible to locate in previously rural areas with the increased use of electronic communications. Agriculture is under pressure to convert to other uses. This pressure comes in the form of higher land values and the resulting higher taxes. Farms have been purchased from farmers for these reasons or because of lack of interest on the part of younger farm family members in remaining in an arduous livelihood with limited profitability. A significant issue with farm families is that of inheritance taxes. Farms have found it increasingly difficult to exist in close proximity to suburban development.

The retention of agriculture needs to address the above issues. The greatest of the pressures brought to farmland is economic, in terms of rising land values. This will continue until a municipality takes steps to remove or transfer the



pressure. While rising land values are not a negative factor, they impact the economic viability of farming. Establishing growth boundaries and adhering to them is one strong measure to control the location of future growth and insure that farmland doesn't fall as easy prey to suburban growth. Elsewhere in this chapter is discussion of such a technique, but its importance needs to be reinforced. The establishment of growth boundaries should be based on locating future growth on lands least suitable for farmland and most suitable from an infrastructure perspective. That one step should have an impact on what has become known as suburban sprawl. Additional steps and sometimes related to growth boundaries are techniques such as the transfer of development rights, establishment of conservation easements or restrictions, and the use of land planning tools such as cluster development.

The transfer of development rights is a Zoning Ordinance provision that allows the right to restrict the development of one parcel, for instance farmland, and transfer that right to develop to another parcel which should be within a growth boundary. Formulas are normally used to calculate the base density of the first parcel (sending parcel) and the use of that density on the second parcel (receiving parcel). This is a complicated process but one which has been shown to work effectively within a given area to preserve agricultural land uses. The establishment of conservation easements and deed restrictions on land is another technique that can preserve farmland, when inducements are offered in exchange for the limitation of use. Inducements can be in the form of reduced tax rates or outright purchase of the easement. In some cases, the purchase of environmentally sensitive areas by a conservation organization such as The Nature Conservancy may occur.

One of the elements of land use pressure facing farmland is the amount of land consumption occurring because of suburban sprawl. Obviously, large residential lots are going to consume greater land areas than smaller ones. The use of innovative site planning techniques such as cluster design subdivisions can reduce the land consuming effect, while still providing desirable houses. Key to the success of cluster design is the ability to preserve significant amounts of open space which serve collectively the entire development. Rather than each house having several acres of its own open space taken up in large front and rear yards, the common open space serves each unit. The orientation of houses is important to achieve the relationship to the open space. Cluster development that does not rely on public systems but on on-lot systems offers a development option that can preserve open space and agricultural lands. Such development should not be viewed in the same way as cluster development in the northern areas with public sewer and water service. The type of clustering being suggested may appear compact in form, but the lots will be of sufficient size to allow on-lot sewage treatment. The use

of cluster development not only channels growth to designated areas, but it also reduces the land consumptive pressures on farmland.

The discussion of open space preservation is elaborated upon in Chapter 9, Natural Resources and Open Space Plans, where options and techniques are examined in greater detail.

Regional and County Plans

East Coventry Township is located among other townships that are collectively the Federation of Northern Chester County Communities. This is a sub-County regional planning organization made up of the following municipalities:

- East Coventry Township
- East Nantmeal Township
- South Coventry Township
- East Vincent Township
- East Pikeland Township
- West Vincent Township
- North Coventry Township
- Warwick Township
- Spring City Borough

In December of 1996 the Federation issued its Regional Land Use Plan, which addressed the issues that were common to the member municipalities, including land use. A Regional Land Use Management Plan was developed to illustrate the very general land use intentions of the region. East Coventry Township is portrayed as being divided by the east-west flowing Pigeon Creek and Bickels Run into a southern area designated as "Rural Community" and a northern area of "Suburban Neighborhood". The term 'Rural Community" refers to agriculture and residential lots of a density between 0.5 and 1.0 dwelling units per acre. The term "Suburban Neighborhood" refers to a variety of residential uses within defined neighborhoods at a density between 1.0 and 4.0 dwelling units per acre. This plan does deviate from the simple division by Pigeon Creek and Bickels Run, in that an area to its northwest, near the border of North Coventry Township, is shown as "Rural Community". Similar to the Future Land Use Plan of this Comprehensive Plan, it is the northern sector of the Township that is expected to accommodate the future growth.

East Coventry Township is also a member of the Pottstown Metropolitan Regional Planning Commission. See Chapter 2 for a list of all of the member municipalities of this regional affiliation. Figure 7.1 illustrates the respective land use designations for the two counties. The area within the municipal

boundaries of Pottstown are highly urban, as shown on the figure. A comparison of the zoning maps for the area indicates a more intensive pattern of uses in North Coventry, Pottstown and Lower Pottsgrove than in East Coventry Township. Generally, there is a greater emphasis on residential development in East Coventry and at a lower density than in nearby areas surrounding Pottstown. Although not located in the Pottstown Metropolitan Regional Planning Commission area, the Limerick Nuclear Power Plant in Limerick Township (Montgomery County) across the Schuylkill River is an example of such an intensive use.

Chester County has also addressed future land uses in the area with the July, 1996 publication of "Landscapes, Managing Change in Chester County 1996 – 2020". This guide to future land uses identifies various use types, which are known as "Livable Landscapes", as follows:

- Natural
- Rural
- Rural Center
- Urban
- Suburban
- Suburban Center
- Village

The mapping of the "Livable Landscapes" on a County-wide basis is even more general than the regional study but reflects the same division of the Township by Pigeon Creek and Bickels Run. The area to the south is designated Rural and the area to the north is Suburban, with Pigeon Creek being a Natural corridor. No centers or villages are noted within the Township. "Landscapes" envisions rural areas as being farmland that can participate in County sponsored programs of preservation. These areas are also subject to the management of infrastructure so that sewer and water service extensions do not occur. The suburban areas should provide for the concentration of retail, office and services into suburban centers and corridors. Design flexibility should occur to allow for mixed use development, density variations, mass transit and pedestrian systems. Neighborhoods should have pedestrian links to local businesses and public facilities, as well as connections to other landscapes.

Summary

Future land use in East Coventry Township will be governed by the willingness of the citizens and their officials to apportion the anticipated growth to areas

which can accommodate higher densities, while protecting and preserving the rural character that is the heritage of the Township. Continued random growth will intrude into that character and diminish its value. Techniques that cluster new housing so as to take advantage of the infrastructure efficiencies need to be employed. Efforts also need to be made to preserve agriculture land uses, primarily in the southern sector of the Township. Consideration should be given to identifying and preserving an open space corridor along Pigeon Creek and relating its passive recreation potential to surrounding municipalities.

During the planning period to 2020 East Coventry Township will experience growth pressures. Those pressures should be channeled constructively so as to retain all of the elements that have made it a desirable place to live, work and play.

CHAPTER 8 HOUSING PLAN

The purpose of this chapter is to present the issues related to both current and future housing needs in the Township. Chapter 6 of this Plan, Population and Housing, identified the historical view of population changes over time, projections of population into the future, and development of the relationship between population and housing. Census 2000 data has been used whenever possible, including projections made for this Plan. Not all of the analysis of the Census data has been made available at this writing, specifically occupancy and tenure comparisons related to housing issues. When such data is released it should be compared to elements of the Plan for consistency.

Housing Needs

The population of East Coventry Township in 2000 was 4566 individuals, with an increase to 5270 to occur by 2020, according to projections developed by the Chester County Planning Commission. The recently completed Act 209 Impact Fee Advisory Committee Land Use Assumptions Report evaluated different population forecasting techniques (see Chapter 6) and adopted an Adjusted Trend forecast calling for a population of 8700 persons by 2020. This Comprehensive Plan uses a Trend Line projection which is 7364 individuals. Future housing needs are based on estimates of population growth and estimates of household size. Using 2000 population totals and total housing units available, the average household size was 2.71 individuals. This represents a decline from 2.85 persons per dwelling unit in 1990. The average household size will probably continue to decline in the future, although perhaps not at the same rate. Conditions affecting a decline in household size are such factors as families having fewer children, adults postponing marriage, divorced or separated persons living alone, and an increased number of elderly persons living alone.

The obvious result of declining household size is the increased number of dwelling units necessary to accommodate a given population size. Greater numbers of dwelling units in turn translate into greater amounts of land converted to residential purposes. For the purpose of projecting the future housing needs of East Coventry Township, a figure of 2.71 persons per household will be used. Table 6.12 in Chapter 6 develops the projection of population into projections of housing. By the year 2020 it is forecast that as many as 1032 new dwelling units will be needed to accommodate anticipated growth, although there are 969 dwelling units either currently or recently reviewed by the Township, beyond the year 2000 population figure. This balance could be met in a number of ways, including small subdivisions

occurring during the period or several large developments which would be phased over a number of years. The preferred scenario would be larger projects that utilize innovative site planning techniques, including cluster design, that maximize the use of infrastructure and create significant amounts of open space.

Dwelling Unit Types and Densities

The Zoning Ordinance of East Coventry Township provides several residential districts which offer a range of densities to accommodate future growth. The housing types permitted are single family detached, duplex, twin, townhouse, and garden apartment dwelling units. Table 8.1 below outlines the conditions under which the various housing types are permitted in four residential zoning districts, including the requirement for public sewer (PS) and public water (PW).

Table 8.1

Existing Residential Zoning Districts

District	Dwelling Unit Type	Minimum Lot Area
FR, Farm Res.	S.F. Detached	3⁄4 ac. w/ PS* and PW* 1 ac. w/ PS or PW 2 ac. No PS or PW
R-1, Residential	S.F. Detached	¾ ac. w/ PS and PW 1 ac. w/ PS or PW 1 ½ ac. No PS or PW
R-2, Residential	S.F. Detached	½ ac. w/ PS and PW ¾ ac. w/ PS or PW 1 ½ ac. No PS or PW
	Two Fam. Detached	18,000 sf w /PS and PW
	S.F. Semi-Detached	10,000 sf w/ PS and PW
	S.F. Attached	10,000 sf w/ PS and PW

R-3, Residential	S.F. Detached	½ ac. w/ PS and PW ¾ ac. w/ PS or PW 1 ac. No PS or PW
	Two Fam. Detached	18,000 sf w/ PS and PW
	S.F. Semi Detached	10,000 sf w/ PS and PW
	S.F. Attached	10,000 sf w/ PS and PW
	Two Fam. Semi Det.	9,000 sf w/ PS and PW
	Townhouse	2,000 sf w/ PS and PW
	Garden Apartment	3,000 sf w/ PS and PW
	Adult Community	5 d.u./ac.
	S.F. Detached (Cluster)	25 ac. site w/ PS and PW

Source: East Coventry Township Zoning Ordinance

Table 8.1 represents a wide variety of housing types and densities. It is the focus of this Comprehensive Plan to encourage the development of future housing in forms that are compact and utilize the available infrastructure, while retaining significant amounts of open space. For instance, in the FR, R-1, R-2 and R-3 districts, it is possible to develop residential communities on lots of less than one (1) acre, if public or community sewer and water are provided. Combinations of dwelling units into single family attached, single family semi-detached and two family attached are options in the R-2 district that can be developed on 18,000 square foot lots and 10,000 square foot lots, in locations where such density is appropriate, such as near transportation corridors or other similar density housing. While there are minor areas of R-1 zoning with public water service, the Township does not encourage the expansion of sewer into these areas or development at densities normally associated with the provision of public sewer and water.

The Township Zoning Map, **Figure 8.1**, provides a significant area of R-3 zoned land along Route 724, mostly on its western side, and north of Pigeon Creek. A portion of that R-3 area is the location of the proposed Coventry Village development of 274 dwelling units. As is noted in the

^{*} PS = Public or Community Sewer PW = Public or Community Water



above table, R-3 zoning permits a wide variety of housing densities and building types, including apartments and townhouses. It is in this district that future growth in population should be housed. Both the Township Zoning Ordinance and the Zoning Map provide opportunities for the development of all forms of housing. The Route 724 corridor is also the location for almost all of the Townships commercial and industrial zoning as well, providing opportunities for service commercial and employment centers related to the higher density residential area. This established pattern should meet the needs for expanded populations during the planning period, while maintaining the rural and agricultural zoning pattern south of Bickels Run and Pigeon Creek.

Fair Share Housing

The Pennsylvania Municipalities Planning Code [Section 301(a)(2.1)] requires that a municipal Comprehensive Plan include a "plan to meet the housing needs of present residents and of those individuals and families anticipated to reside in the municipality, which may include conservation of presently sound housing, rehabilitation of housing in declining neighborhoods and the accommodation of expected new housing in different dwelling types and at appropriate densities for households of all income levels." This Plan has discussed the future housing of East Coventry Township in this and other chapters. There are a variety of housing types proposed, from single family detached, single family attached (townhouse) and apartments. In a discussion of this matter, the concern is generally about the ability of the land use plan to propose a variety of types, including multi-family housing. East Coventry Township has traditionally been a single family detached community. However, this last matter, multi-family housing, is proposed to be addressed by the construction of the Orchard Ridge development on Spiece Road. This project alone, proposing 274 apartments, accounts for approximately 28% of the 969 units of proposed subdivision activity shown in Table 6.10. Additionally, the proposed Coventry Meadows development, comprising 379 townhouse units, will be located on the west side of Old Schuylkill Road.

The intent of fair share housing is the distribution of housing types geographically and economically. As discussed in Chapter 7, Land Use Plan, the number of proposed dwelling units within the Township's review process comes close to meeting the housing needs of the projected population for the year 2020. Another aspect of fair housing is the preservation of existing housing stock for future residents. To accomplish this, the Township needs to continue its vigilance in enforcing building and housing codes uniformly and consistently.

Summary

The future housing needs of East Coventry Township can be met utilizing the current pattern of zoning districts and the range of development options available within the restrictions of those districts. Approximately 52 new dwellings will be needed annually to accommodate a growing population, which will include household types ranging from the traditional family to an increasing number of single person households in all age ranges. It is anticipated that the Township will be able to absorb the additional population, and still retain a viable agricultural economy and rural character.